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ABSTRACT

This guidebook is designed for use in teaching students enrolled in preemployment laboratory education (PELE) food service programs. The first of two major sections includes an overview for teachers on planning, conducting, and evaluating a PELE food service program. Specific topics discussed in section 1 include (1) facilities and equipment, (2) teacher responsibilities, (3) student selection, (4) scheduling, (5) laboratory experiences, (6) classroom instruction, (7) factors involved in planning, (8) how to plan and execute a food function, (9) laboratory management, (10) safety, and (11) sanitation. Section 2 presents the PELE food service curriculum. Lesson plans are presented within five areas: introduction to the food service industry, equipment, quantity food methods, quantity food production, and food service techniques. Each lesson plan follows a typical format that includes six parts: subject title, competency, objectives, sub-competencies, laboratory skills, and classroom concepts. A detailed reference list is appended. (LRA)

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PRE-EMPLOYMENT LABORATORY EDUCATION

FOOD SERVICE GUIDEBOOK

Materials Developed and Distributed by

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Directed by

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FOREWORD

Purposes for vocational education outlined by the 1976 Education Amendments include maintaining existing programs of vocational education, developing new programs of vocational education, and developing and carrying out vocational education programs within each state so as to overcome sex discrimination and sex sterotyping in vocational education programs. The Education Amendments provide for encouraging both males and females to prepare for combining the roles of homemakers and wage earners. The Vocational Act of 1963 and the Vocational Amendments of 1968 focused attention on the need for more occupational education programs for students at the high school level. Educators have become increasingly concerned about students who graduate or leave school without the vocational preparation for earning a living and who therefore fail to become contributing members of society. The 1963 Act and the Amendments of 1968 and 1976 have provided opportunities for schools to offer additional educational programs to help meet the vocational needs of students of both sexes in our competitive and technological society.

The gainful employment programs are not, in any sense, meant to replace the homemaking education courses directed toward homemaking. More and more persons in our society are assuming the dual role of homemaker and wage earner. Home economics thus has the responsibility for helping men and women meet the demands of both of these roles. An additional responsibility is that of providing training for students who may be interested in occupations related to home economics.

In summary, some of the reasons education for employment is appropriate in home economics are the following: with an increasing number of women employed outside the home, both men and women need preparation for the dual roles they are assuming; there is an increasing need for personnel in the service occupations related to home economics; the number of jobs for unskilled workers is decreasing, more and more jobs require training of some kind; and current information indicates the desirability for all secondary students to graduate with a saleable skill.

We, as home economists, must both meet the challenge to provide students with opportunities for gainful employment training while they are in high school and encourage them to consider advanced training after graduation.

The various subject-matter areas of home economics are relevant to a variety of occupations. There is a need in many occupations for employees who have had some training, but not necessarily a college degree or even college credit. During the past few years, an increasing number of people eat outside the home, leave their children in child care centers, purchase ready-made clothing, desire alterations or repairs on their clothing, want help with decorating their homes, and require clean, pleasant surroundings in homes, hotels, motels, hospitals, schools, and public buildings. With the expanded demand for services, the need for more trained employees in the areas of care and guidance of children; clothing management, production, and services; food management, production, and services; home furnishings, equipment, and supplies; and institutional and home management and supportive services is apparent.

The Home Economics Pre-Employment Laboratory Education program is an occupational program which helps students prepare for the world of work or for advanced education in these occupational areas. Many students who participate in this program continue their educations either in technical schools or in colleges; others become full-time employees upon graduation.

The Food Service Guidebook is designed for use in teaching students enrolled in PELE Food Service programs. The guidebook covers competencies needed by entry-level workers in a variety of food service jobs.

The following concepts are included: introduction to the food service industry, equipment, quantity food methods, quantity food production, and food service techniques.

The information included in this publication is presented in two sections. The first section includes an overview for teachers on planning, conducting, and evaluating a PELE Food Service program.

The second section includes these food service concepts and sub-concepts:

> The introduction to the food service industry introduces the student to PELE Food Service through instruction on career opportunities, laboratory orientation, personal hygiene, sanitation, safety, and receiving, storing, and issuing procedures.
>
> The concept equipment includes small and large equipment for food preparation and service and large equipment for cooking food.
>
> The unit on quantity food methods covers techniques of food preparation, introduction to menu planning, and spicing and flavoring in quantity food preparation.
>
> Skills in quantity food production are developed through study of appetizers and garnishes; beverages; sandwiches; fruits and vegetables; salads and salad dressings; soups, sauces, and gravies; cereals and pasta; eggs and egg dishes; cheeses and cheese products; meats, seafoods, and poultry; breads; fruit desserts and fried desserts; puddings, custards, soufflés, gelatin desserts, and frozen desserts; cookies and cakes; and pies, pastries, and meringues.
>
> Food service techniques are acquired through study of opening and closing duties; bussing duties; customer, employee, and resident food service; money handling; patient service; and catering service.

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SECTION ONE

OPERATION OF A PELE FOOD SERVICE PROGRAM

OPERATION OF A PELE FOOD SERVICE PROGRAM

Overview of Program

The Home Economics Pre-Employment Laboratory Education Food Service program is an occupational program which helps students prepare for the world of work or for advanced education in the area of food management, production, and services. Many students who participate in this program continue their educations either in technical schools or in colleges; whereas others become full-time employees upon graduation.

Food service is one of the approvable PELE programs. In order to train PELE students for employment in entry-level positions, the PELE Food Service program should include instruction in various competency areas of food service occupations. A list of food service competencies is included in SECTION TWO: FOOD SERVICE CURRICULUM.

Many career opportunities exist in the areas of food management, production, and services. Laboratory experiences and classroom instruction are designed to provide students with knowledge and skills needed for gainful employment in these areas. The laboratory experiences are conducted in a food service laboratory on the high school campus which operates under the direction of the PELE teacher.

Facilities and Equipment

The facility should meet the minimum space requirements recommended in the current Vocational Homemaking Education Program Standards (Texas Education Agency). The Suggested Equipment List for High School Home Economics Pre-Employment Laboratory Education Food Service Program (Figure 1, pages 31-39) identifies approvable equipment and shows two acceptable floor plans. Within funds available, equipment on the list is reimbursable according to the district's current percentage assignment for state participation in equipment funding. Request for equipment and reimbursement is made on Form VOC 052 R 75, Reimbursable Equipment Schedule. Items to be purchased are selected from bids submitted according to the local school district's policy. Major equipment (items costing $100 or more per unit) and minor equipment (items costing less than $100 per unit) must be listed separately. All items listed must be properly and adequately described including size and capacity when applicable. When completed, send three copies of the Reimbursable Equipment Schedule, TEA Form 221 and the superintendent's request for approval to the Director of Secondary Programs, Department of Occupational Education and Technology, Texas Education Agency, 201 East Eleventh Street, Austin, Texas 78701.

The laboratory should have a minimum of 1632 square feet. It should be planned to simulate successful food service establishments. Adequate space must be provided for students to work efficiently and for the teacher to supervise laboratory work. Arrangement of the food service laboratory so that traffic patterns eliminate congestion and confusion is very important to insure efficient production and service. Plans for the facility must be approved by the vocational homemaking education consultant serving the school district.

Teacher Responsibilities

Since PELE Food Service programs are designed to prepare students for entry-level positions in commercial or health care food service facilities, laboratories should simulate actual job situations. To achieve such a situation, the PELE teacher must assume the role of the commercial food-service manager. Proper planning, efficient execution, and adequate evaluation are essential in order to insure successful experiences. The following is a brief synopsis of the PELE Food Service teacher's duties in relation to operating the PELE Food Service program.

Planning Menu and Service--Planning must involve deciding on the food items to be prepared in the laboratory and also specifying how these items will be presented to customers.

Recipe Standardization--The use of standardized recipes helps to insure the production of standard products with consistent yield and quality. Following standardized recipes also helps to evaluate products accurately for cost and nutritional value.

Procurement of Supplies--Supplies for the laboratory can be purchased more easily when the PELE teacher gains an awareness of the market. Once the possibilities are known, menus can be planned and needs determined for specific quantity and quality of items. Purchasing procedures for the laboratories vary according to school policy and locale.

Detailed Planning of Production and Service--Every item on the menu must be planned to fit into the production schedule. Items that require longer preparation time may need to be started the day or week before service. Avoid too many last-minute preparations. However, plan food production and food service activities for students which realistically duplicate those required in food service establishments. The students should be required to meet deadlines and experience normal pressures which exist in food service job situations so that they will be better prepared for future employment. Plan, in detail, the method of service. Double check to be sure the number of people with the skills required and the physical facilities and equipment to carry out the service plan efficiently and effectively are available. Early in the year, menus and service should be kept simple. Increase difficulty as students gain skill and confidence.

Supervision of Production and Service--The responsibility of supervising students while production and service occurs in the laboratory involves many activities. Students must be trained to perform as they would on the job. While providing instruction for students, the PELE teacher must also supervise activities so that the laboratory becomes a realistic work situation with each worker assigned specific tasks to be performed under realistic job pressures.

Clean-Up--A frequently neglected phase of food-service planning, thorough clean-up is a must for efficient operation. By clean-up time, workers are tired and are faced with perhaps their least-favorite task. Preparing and following a detailed cleaning schedule in PELE laboratory work aids in the efficiency and effectiveness of clean-up procedures. Such planning will pay dividends in both a cleaner facility and happier workers. Clean-up includes sanitizing facilities and equipment. Sanitation in clean-up is essential to the health of patrons of the food service laboratory. Proper procedures for food and supply storage must also be followed. Prompt and correct storage of leftover foods provides items which may be used in planning another menu. This is a valuable aid in effective cost control as well as a necessary part of sanitation.

Evaluation--The phase of evaluation is essential to the PELE program in order to run an effective food service operation and to train students. When undesirable events occur in the laboratory, the teacher and students must try to discover why they happened and what can be done to prevent their occurrence in the future.

Public Relations--The responsibility to "sell" the food service rests squarely on the shoulders of management. A good public image goes a long way in creating sales, provided good food is served. The entire image of the PELE Food Service program may well depend on what the public sees on serving day.

Employee Selection and Training--When training students in the PELE laboratory, emphasis should be placed on workers following specific procedures as instructed by supervisors. Every food service operation has its own methods and specific procedures for performance of required tasks. People hired (even the experienced) must be taught how to do things according to the established procedures of the particular food-service operation. A worker's willingness and ability to follow directions is a key to success on the job.

Problem Solving and Decision Making--Throughout the previously listed phases of running the PELE Food Service laboratory, the PELE teacher is called upon to evaluate problem situations and make decisions regarding them. There is rarely one best solution for any problem. Frequently, problem solving and decision making are done within drastically limited time. It is inevitable that some mistakes will be made. Thinking carefully through the steps in the decision making process helps one to view the situation more clearly. Consideration of the various advantages and disadvantages involved in solving a problem in different ways, may also indicate directions to take in decision making.

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The PELE Food Service teacher and the food service manager have a great deal in common. Both must decide on the final food products desired, plan the production, teach the personnel how to produce the end product desired, and evaluate the final product, personnel, and procedures used to achieve it. The PELE teacher will place emphasis on training and evaluating the students. The commercial food service manager will look more at the process and the final product with an emphasis on costs and may use such evaluation to determine whether a particular worker is given a promotion or is fired. Using all available resources wisely and efficiently will help the PELE teacher to run a smooth and efficient operation in the classroom and laboratory. Resources available to the teacher include:

1) Instructional Materials--The PELE Food Services Guidebook provides the framework for class and laboratory instruction in food service. The guide is divided into units which cover various subject areas. Specific statements describe competencies that students should achieve in food service work. Successful achievement of these designated competencies should be required of students before passing grades are given. For each subject area, overall objectives are given to aid in guiding students toward various goals. Sub-competencies are stated which students should achieve in order to master the major competencies. Skills the students should develop through laboratory experiences and concepts to be developed through classroom instruction are given for each sub-competency.

   Various food service textbooks and references are available which will aid the PELE Food Service teacher in planning and implementing the instructional program. Food Service Careers is a suggested textbook for use in combination with other instructional materials in the classroom. Food for Fifty provides a good source for quantity recipes, purchasing information, and other, helpful aids for planning food service experiences. These and other references are included on the reference list accompanying this guidebook.

2) Advisory Council--The PELE teacher should utilize an advisory council to obtain information and advice needed for effective planning and operation of the PELE Food Service program. Advisors might include food service employees holding different positions at different levels in a variety of types of food service establishments, students, parents, and administrators. Such individuals as the president of a local restaurant association or the director of the school lunch program can provide valuable input and may be sources of providing jobs for PELE graduates.

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3) Food Service Facilities in the Community--Commercial and institutional food service facilities existing in most communities provide sources for enrichment of student experiences in PELE Food Service programs. Field trips to public facilities provide many experiences including: orientation of students to the food service industry, viewing total food service operations in progress, observing commercial equipment in use, and comparing types of services provided by different establishments. Managers and supervisors of various businesses may also be willing to provide visits to the PELE classroom in order to share their knowledge of food service. Members of the local chapter of the Texas Restaurant Association will generally be glad to assist with any educational program.

Student Selection

The PELE Food Service program is designed for students, both male and female, in grades 10, 11, and 12 who are interested in working in the field of food service. Many students are unaware of the career opportunities in the food service industry. They may need information on the jobs available and on opportunities for advancement. Students considering the program should be given the chance to meet successful food service workers at all levels.

Scheduling

For an effective PELE program, the schedule should be planned to insure the following:

1) Adequate time for class instruction. At least 3 hours per week should be allotted for study of food service and discussion of laboratory experiences. The remaining class time, about 2 hours per week, should be devoted to general instruction related to entering the world of work.

2) Adequate time for laboratory experiences. At least 5 hours per week should be spent in the food service laboratory performing tasks as similar as possible to ones performed in actual food service establishments.

3) Appropriate food service functions for different class periods. In order to use available resources efficiently and secure customer business, laboratory food service functions should be planned which are appropriate for the time of day in which class periods are scheduled. For example, early to mid-morning PELE classes might serve breakfasts or brunches to customers. Lunches can easily be planned for classes scheduled around noon to prepare and serve. Catering services and short-order operations can provide laboratory experiences for late-afternoon PELE classes.

Laboratory Experiences

Laboratory experiences permit PELE students to work in a specially designed facility in order to gain actual work experience in food service. Participation in the food service laboratory involves several types of activities:

1) Food and beverage preparation.

2) Preparation of service area.

3) Service of food and beverages to customers and related customer services.

4) Clean-up activities during and after service.

The PELE teacher is responsible for supervising laboratory experiences. Laboratory assignments should be made through use of student work schedules to insure that every student is aware of his/her duties. Student schedules should be designed to insure that each student is assigned a variety of food service tasks and learns to operate each piece of equipment in the food service laboratory.

The menu planned for a particular laboratory experience should be used to determine the number of student workers assigned to specific tasks. Assigning more students than needed should be avoided as it decreases the learning value of the experience and may even cause confusion and hazards in the laboratory. Students not scheduled to participate in food production, service, and clean-up may be assigned individual study, observation, or special tasks such as polishing or wrapping silverware, inventorying supplies, or other tasks related to laboratory management.

Classroom Instruction

Class instruction should be designed to help students gain knowledge of food service operations, how establishments function, and the food service employee's place in the world of work. The PELE Food Service Guidebook should be used to establish a general plan for classroom instruction. It includes the concepts which should be included in the class instruction in order to provide necessary background knowledge on which laboratory experiences are based.

Factors Involved in Planning

Several factors are involved in making plans for functions which occur in food service establishments. Factors which should be carefully considered in the planning stages include menus; standardized recipes; recipe alteration; food purchasing; receiving, storing, and issuing foods; and production, service, and clean-up.

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Menu Planning

Management of food service begins with planning the menu. The menu is the basic plan used in food production. It is essentially the map of all operations. Since planning food service menus requires using techniques which result from training and experience, the teacher must assume responsibilities for approving all menus used in the PELE laboratory. Introduction of concepts involved in the planning process can be very useful in enlarging students' understanding of the total food service operation. Students should be directly involved in menu-planning activities as soon as they acquire the basic skills needed. Through such a study, some students may discover that they possess planning abilities which enhance their employment opportunities.

Factors to consider when planning the menu include:

- Clientele preferences
- Nutritional adequacy
- Flavor, color, odor, texture, shape, eye appeal, and variety
- Workability in terms of available space
- Quantity and quality of equipment available for preparing, holding, and serving
- Number of workers available and their skills
- Product availability, budget, and profitability
- Merchandising potential
- Location, type, size, and serving hours of food service establishment
- Cost control
- Festive occasions, special events, and holidays
- Weather conditions.

Suggestions regarding menu planning include:

- Work when you are not fatigued.
- Make sure you will be uninterrupted.
- Have adequate resource materials available.
- Have a predetermined format.
- Have time to work on menu, put it aside, then review it.
- Have several persons to help plan and/or evaluate the menu.

Resources for menu planning might include publications on quantity food preparation, quantity recipes, publications on foreign and holiday foods, menus (from restaurants, cafeterias, and short order food facilities), PELE Food Service Guidebook, Food Service Employee (available from Home Economics Instructional Materials Center), block and lesson plans, school calendar, school cafeteria menus, budget, current food-price tables, list of seasonal foods, and background information (clientele, type meal, time of day, season, special requests).

Persons who might be willing to evaluate the menu you plan include: city homemaking supervisor, other homemaking teachers, local home economists, school cafeteria manager, local commercial food-service managers (restaurant, cafeteria, or short order, as needed), registered dietitians (R.D.), school principal, and clientele. With the aid of one or more of these persons, you should be able to prevent major errors in menu planning.

Standardized Recipes

Recipes which have been tested to ensure consistent quality through the use of standard products, amounts, methods, equipment, and processing are called standardized recipes. Yield as well as portion technique and size have been predetermined. Standardized recipes are an aid to achieving products consistent in quantity and quality, are useful in training new employees, and are a must for achieving price control.

Components of the standardized recipe include:

1) Name
2) Ingredients: form and amounts for frequently used yields
3) Methods and techniques of preparation
4) Planning information: size of pan, condition (i.e. greased), depth of fill, etc.
5) Time and temperature controls
6) Yield: total quantity (e.g. 4 gallons, two 9 x 12 x 2-inch pans, etc.) and number of servings of a specified size (e.g. 10- 3 oz. servings)
7) Serving information: size, equipment, technique, garnish, special holding instructions
8) Any other pertinent information

Each of these components is included in the sample recipe in Figure 2, page 11.

The PELE Food Service teacher should establish a file of standardized recipes. Recipe cards may be laminated or covered with clear self-adhesive plastic to keep them clean during use. Soil will wipe off easily so the cards may be used many times. Include amounts for yields most commonly used in the particular operation. Leave one column blank on recipe cards so amounts for a different number of servings may be written in with pencil or grease pencil and wiped off later. Be sure to have at least one duplicate set of the recipe cards in order to insure that recipes are available for use at all times.

A standardized recipe should be printed on a 5 x 7-inch or larger card and utilize a format such as the following. (Students with reading difficulties might find recipes in large type easier to use.)

FIGURE 2

SAMPLE STANDARDIZED RECIPE

OVEN-CRUSTY CHICKEN THIGHS ONE PORTION: One piece of chicken
6-8 oz. cooked weight

	Serves		
Ingredients	20	50	Method
Chicken, Thighs 8-10 oz. raw pieces	20 pieces	50 pieces	1. Wash, dry chicken pieces
Butter	1 lb.	2 1/2 lb.	2. Melt butter; mix with salt and pepper
Salt	1 Tbsp.	2 1/2 Tbsp.	
Pepper, black	1/2 tsp.	1 1/2 tsp.	
Corn Flake Crumbs	1 1/4 qts. approx.	2 1/2 qts. approx.	3. Dip chicken in seasoned butter, roll in corn flake crumbs. Place in shallow (1"-2" deep) baking pans. Do not crowd chicken. (If chicken pieces are very cold, butter hardens on surface and corn flake crumbs will not adhere.)
			4. Bake at 375° F. approximately 1 hr. until tender and brown. No need to cover pan or turn chicken while baking.

NOTES: Not good cold.
Particularly good served with bacon-seasoned green beans and boiled whole potatoes.

SERVING INFORMATION: One piece per serving, garnish with parsley sprig.

When standardizing recipes for use in the PELE laboratory, certain guidelines should be followed. The following guidelines help to insure that recipes may be used efficiently for food production experiences in the laboratory.

1) Use a practical form so that recipes are easy to read.
2) Give directions in detailed, concise, and exact terms.
3) Express all quantities in usable figures; convert all measures into the largest possible unit.
4) Use the same abbreviations in all recipes.
5) List all ingredients in order used, utilizing correct terminology and adding any necessary qualifying statements.

6) Check and revise recipes periodically for accuracy, for improved or newer methods or equipment, for timesaving steps, and to assess current costs.

7) Improve and update the file by obtaining ideas for variations, garnishes, and combinations from different sources such as pictures, clippings, and actual observations in food service establishments.

Recipes should be filed according to an identified system. One used by many food facilities is the following. Divide recipes into logical categories such as appetizers, soups, salads, entrees, entree sauces, vegetables, breads and rolls, desserts, and beverages. Code and number recipes within each division such as: Appetizer 1, Appetizer 2, Appetizer 3, Soup 1, Soup 2, Soup 3, etc. Make an index for each division on same size card(s) used for recipes and place at the front of each division. Recipes may be located quickly and it is much more likely they will be returned to the correct place. If the recipe file is particularly large, an alphabetized index of all recipes might be located in the front of the file. Figure 3 is an example of how such an index might be setup.

FIGURE 3

MASTER INDEX

Item	Category	Recipe Number
Abalone Steak	Entree	1
Apple Compote	Salad	1
Banana Bread	Breads and Rolls	1
Cheese Rolls	Breads and Rolls	2

Standardized quantity recipes may be obtained from numerous sources. Food for Fifty is one of the best known sources of recipes. Other sources include national food-product associations, school-lunch publications, commercial firms, and food-service periodicals. Recipes should be tested and adapted as necessary before adding to the file. Recipes with small yields may be tested and enlarged. Some recipes may be obtained by using or adapting prepared mixes. (Other sources of quantity recipes appear in the reference list accompanying this publication.)

Altering Recipes

To simply double a recipe or cut it in half may not result in a product exactly like the original. In particular, seasonings, thickening agents, and sauce portions of casseroles may not be in proportion when a recipe is multiplied or divided. Frequently, lesser proportions of these ingredients are needed when recipes are doubled, larger portions when divided.

To multiply a recipe, use the following procedure: Evaluate the smaller recipe as to proportion, method, cost, and yield. Double the recipe first. Alter, if necessary, and evaluate. Then double or triple again following the same procedure until you have reached a yield for at least 25 servings. To take a recipe for four and begin by making it for forty or four hundred may spell disaster. In cutting recipes, the same procedure is advisable.

Convert ingredient quantities to weights whenever possible. These are easier to work with and result in more uniform finished products, provided you have an accurate scale and weigh carefully. Charts giving weight and measure equivalents for commonly used foods are found in Food for Fifty and other quantity food production sources. Measuring spoons should be used for measuring spices and small amounts of thickening agents for best finished product results.

Purchase of Food

Once the menu is planned and the recipes are located, it is time to plan food production. Purchasing the raw materials is the first step. The old saying, "You can't make a silk purse out of a sow's ear," should be observed. Finished products cannot be better than the raw materials from which they were made. For example, buying quality vegetable oil for the fry machine may result in savings because it doesn't break down as quickly. However, this doesn't mean you must always buy the very best. A silk purse may be nice, but maybe a cotton one is adequate in many situations. Always compare price, quality, and service when purchasing food products. Remember this rule: buy the optimum quality for the specific intended use at the best price possible. Example: Paying a premium price for the red color in apples when the apples are to be peeled is a waste of money.

There are many factors which affect procedures for buying products for the PELE laboratory or for food service businesses. Purchasing procedures may include such considerations as:

> Closeness of supply; amount of storage (dry, refrigerated, or frozen); money available for purchases; general market and economic conditions (availability, seasonability, price trends, and supply); shelf life of food products; production needs.

When ordering food items for laboratory production, precise descriptions should be specified for quality and other factors required such as purchase unit, grade, form, or style. A knowledge of procedures to follow for ordering foods will aid the food buyer greatly. It is also important that food purchasers know what to look for on food product labels. Label information tells the buyer if the item meets the specified requirements.

It may be helpful to discuss with local administrators the value of exploring best ways to purchase goods for the PELE laboratory. Emphasis should be placed on the learning values possible when students are allowed to use purchasing procedures utilized in food service businesses. The following purchasing tips are helpful to the PELE teacher.

Purchasing Tips:

1. Be aware of what the market has to offer. A wide variety of food products are available today. To learn what is available visit with local salesperson, look through local groceries, and attend food shows, or conventions where food products are being shown.

2. Determine needs in terms of quality as well as quantity. State needs in very specific terms.

3. Purchasing procedures vary from school to school and from city to city. Consider some of the following money-saving ideas.

   a. Investigate purchasing from local institutional wholesalers. These frequently specialize in meat, produce, frozen goods, staple goods, canned goods, or paper products. However, some sell a combination of these items. Call as many as possible. Some sell by the case, some break cases, some sell produce by the item or pound, others by flats and cases. To record prices quoted by suppliers, use a market quotation list or call sheet. Prices may vary between sources from day to day. The source with the low price one day may be the highest next time.

   b. Sometimes products are less expensive at the supermarket. This is especially true when small quantities are needed. In addition, the store brand may cost less at the local grocery than well known brands at the wholesale house.

   c. Some local groceries may give a discount to schools. Frequently, this means a cash discount instead of stamps.

   d. Check local damaged-freight outlets. Inspect products carefully before buying. Dry products should show no evidence of bugs or of having been wet. Buy one item and check before buying in quantity.

   e. Perhaps the PELE laboratory could buy with the school lunchroom, a local hospital, or a restaurant. More record-keeping ensues, but the larger the volume purchased, the better the prices.

   f. Buy ahead in bulk quantities when the price is right--if facilities are available for storage of products with minimum pilferage, loss of quality, etc.

   g. Some companies offer a discount of 5-15% for prompt payment (usually within 10 days of purchase). If the local school pays bills only on the first of the month, it may need to be pointed out that dollar savings are possible by more frequent bill paying.

   h. Be flexible. If a product increases drastically in price, change the menu, omitting the item or buy it in another form. Examples: You and your clientele may like sliced tomatoes on hamburgers but that doesn't mean you must have sliced tomatoes every time. Try some new relishes or make sloppy joes using canned tomatoes instead of fresh ones.

   i. Try a variety of brands. A valuable laboratory experience early in the school year might involve comparison of different product brands for grade and quality in relationship to cost. Such an experience provides opportunities to determine which products best fit the needs of the PELE Food Service operation. Some lesser known, less expensive brands are as good as (and possibly even superior to) the more familiar ones.

   j. When shopping in person, list items needed from each source. The list should be planned so that one will drive the shortest distance between stores. List items needed from one store in the order they are located in the store.

   k. Be sure to take proper requisition forms, etc. to prevent time wasted in returning to the school for them.

4. Be a tyrant about receiving goods in both the quality and quantity ordered. An ounce short here and a pound of poor quality there add up to considerable losses over the period of a full school year. Inspect and weigh in each delivery. Be sure weight of the box is not included in the specified net weight. Do not hesitate to return inferior products or short shipments.

5. Store items promptly, properly, and under lock and key. One very financially successful food facility operates under the following premise. "There are mostly nice people in this world but we operate like we don't trust anybody. We save a lot of money that way."

Receiving, Storing, and Issuing Foods

The PELE Food Service teacher holds the end responsibility for receiving, storing, and issuing goods in the laboratory. Skillful purchasing must be combined with careful inspection of products delivered for quality and quantity. Proper storage procedures must be followed to retain full food value. When foods are issued from the storeroom, care should be taken to fill approved orders accurately using items on a first-in, first-out basis. In food service businesses, these tasks are performed by experienced workers. Therefore, PELE Food Service students need training to become skilled at performance of such tasks. Since the teacher does assume the ultimate responsibility, safeguards and double-checking should be built into the system.

Production, Service, and Clean-Up Procedures

The phases of production, service, and clean-up operate much more efficiently when specific plans are made and guidelines are followed. The following tips aid in carrying out phases of food service.

Plan and list everything to be done.
Plan and make written assignments for persons to do each task (considering time required).
Make sure students know how to execute assigned tasks through training, supervision, and follow-up.
Be thorough and precise. Double check plans against menu to make certain you are not forgetting anything.
Develop a form to assist in planning and remembering all of the details. Experiment with several forms to find the best ones for the situation. Make multiple copies only when one is found which is best suited for the operation.

How To Plan and Execute A Food Function

Sample menus with production plans for direct use in the PELE Food Service situation are not included in this publication because a good production plan cannot be devised without knowing the quality and quantity of equipment and supplies which are available as well as the quality and quantity of "employees" at hand. Only the PELE teacher, functioning in the role of food-service manager, can adequately assess these conditions which exist for a particular operation and program.

The format used in this section illustrates techniques of production planning, execution, and evaluation. This format may be adapted for making production plans for a specific facility or a more unique format may be developed. The key to good planning is to become familiar enough with the procedure used so that it is comfortable. Every detail should be included in planning. Rarely does a food manager forget to have the entree prepared but the garnish, special sauce, and appropriate serving utensils and techniques may be overlooked until it is too late. Remembering the little things and doing them well make the difference between an average and an outstanding food function. In addition, carefully kept records of each food function aid in planning similar functions in the future.

The sample food production plans which follow were obtained from a food caterer. They are intended only to serve as an example of how to plan a food function. The plan illustrates the planning done for a catered business breakfast for 18 persons. It was carried out by the caterer and an assistant who were experienced food-service workers. Do not attempt to use this plan for a PELE Food Services laboratory.

Background *(Know everything possible about clientele.)*

> Breakfast meeting for 18 persons who are business and community leaders. Breakfast will be in mid-summer, on Thursday, at 7:00 a.m. (Some may need to be at work by 8:00 a.m. or shortly thereafter.) The planners want an impressive menu. Cost is not a factor.

Menu Preplanning *(Consider clientele; facilities for preparation, holding, service; employees; budget; special requests; special problems; purchasing function.)*

The menu should probably include fruit or juice, eggs, meat, bread, and beverage.

1) Fruit or Juice: Juice is out because there are no juice glasses. Fruits are particularly good in summer. Apples, oranges, etc. might be ruled out since they have been available all winter. Pineapples, melons, and berries are good summer choices. Berries are fair quality in the groceries, supurb quality from local wholesale houses, but a whole flat must be purchased, which is more than needed. Pineapple could be used to produce an exotic compote, and the shell can be used in service; the flesh holds well; the pineapple could be combined with another fruit, definitely non-citrus. Melon holds well and combines well with other flavors. Cantaloupe is available in excellent quality and would compliment pineapple with flavor and color.

2) Eggs: Fried eggs are hard to hold and there is too much variety in personal preferences. The same problems are true of boiled eggs, and guests must peel their eggs, which may be messy. Poached eggs would require an egg poacher for 18 which is not available. Omelets could only be done a few at a time, and are hard to hold. Scrambled eggs are rather ordinary, but baked eggs are not particularly popular in this part of the country.

3) Meat: Bacon is ordinary and messy to prepare. Canadian bacon is tasty and easy to prepare and hold. Sausage could be greasy, but if high quality sausage is purchased, it is tasty and easy to prepare and hold. Steaks and chops are expensive, but tasty and impressive though there are a variety of preferences in degree of doneness. The planners have requested several meats, including small breakfast steaks.

4) Bread: Toast is rather ordinary. Biscuits are different, inexpensive, and tasty. Coffee cake or sweet rolls are fairly easy, but rising time must be considered. A variety of sweet rolls would be nice and have a great aroma.

5) Beverage: Coffee is traditional and essential. A second choice should be made available, probably hot tea. Ice water should be included at each place.

Final Meal Plan *(All items need to be included, ignoring traditional menu form. Consider all of the above factors as in preplanning, plus characteristics of a good total menu. Check total costs of final plan.)*

The following menu was planned for the business breakfast.

Pineapple Boat
with Pineapple and Cantaloupe Compote and Cherry Garnish

Scrambled eggs with Parsley Garnish
Little Smokie Sausages/Charcoal Grilled Breakfast Steaks

Assorted Petite Breakfast Rolls
(Buttered, Cinnamon Sugar, Creamy Glaze, Apricot, Cherry)

Coffee - Tea

Table Condiments - Salt, Pepper, Cream, Sugar, Butter, Ice Water

Costing *(The key point in accurate costing is to include everything. The conversion tables found in Food For Fifty and similar references are very useful. For example, you may know that flour is 85¢ for a 5-pound sack, but that doesn't tell you how much 2 cups costs. The conversion tables give equivalent weights and measures.)*

Prepare current food price tables including food items frequently used. The table should include categories for vegetables, fruits, bread and cereal products, dairy products, meat and eggs, and miscellaneous. Alphabetize items in each category as illustrated in Figure 4. Update each semester to save time in determining costs. Small calculators are useful, too.

FIGURE 4

CURRENT FOOD PRICES

FOOD ITEM	MARKET UNIT	APPROX. SERV./ UNIT	COST/ MARKET UNIT	COST/ SERV.
VEGETABLES				
Asparagus canned--green spears	14-1/2 oz	3	1.20	.40
--green cut	14-1/2 oz	4	.84	.21
frozen--spears cut	10 oz.	4	.95	.24
Beets canned--sliced	16 oz.	4	.33	.09
Brussels sprouts--frozen	10 oz.	4	.51	.13
Broccoli frozen--chopped	10 oz.	4	.37	.10
whole --spears	10 oz.	3	.47	.16
Beans canned--cut green	16 oz.	4	.25	.07
--baby lima	16 oz.	4	.44	.11
--Pork n' beans	16 oz.	2	.32	.16
--Kidney	16 oz.	2	.34	.17
--Ranch	16 oz.	2	.34	.17
frozen--cut green	10 oz.	4	.42	.11
--baby limas	10 oz.	4	.48	.12
dried --pinto	16 oz.	6	.33	.06

FIGURE 5

COST OF BUSINESS BREAKFAST FOR 18
(Spring, 1978)

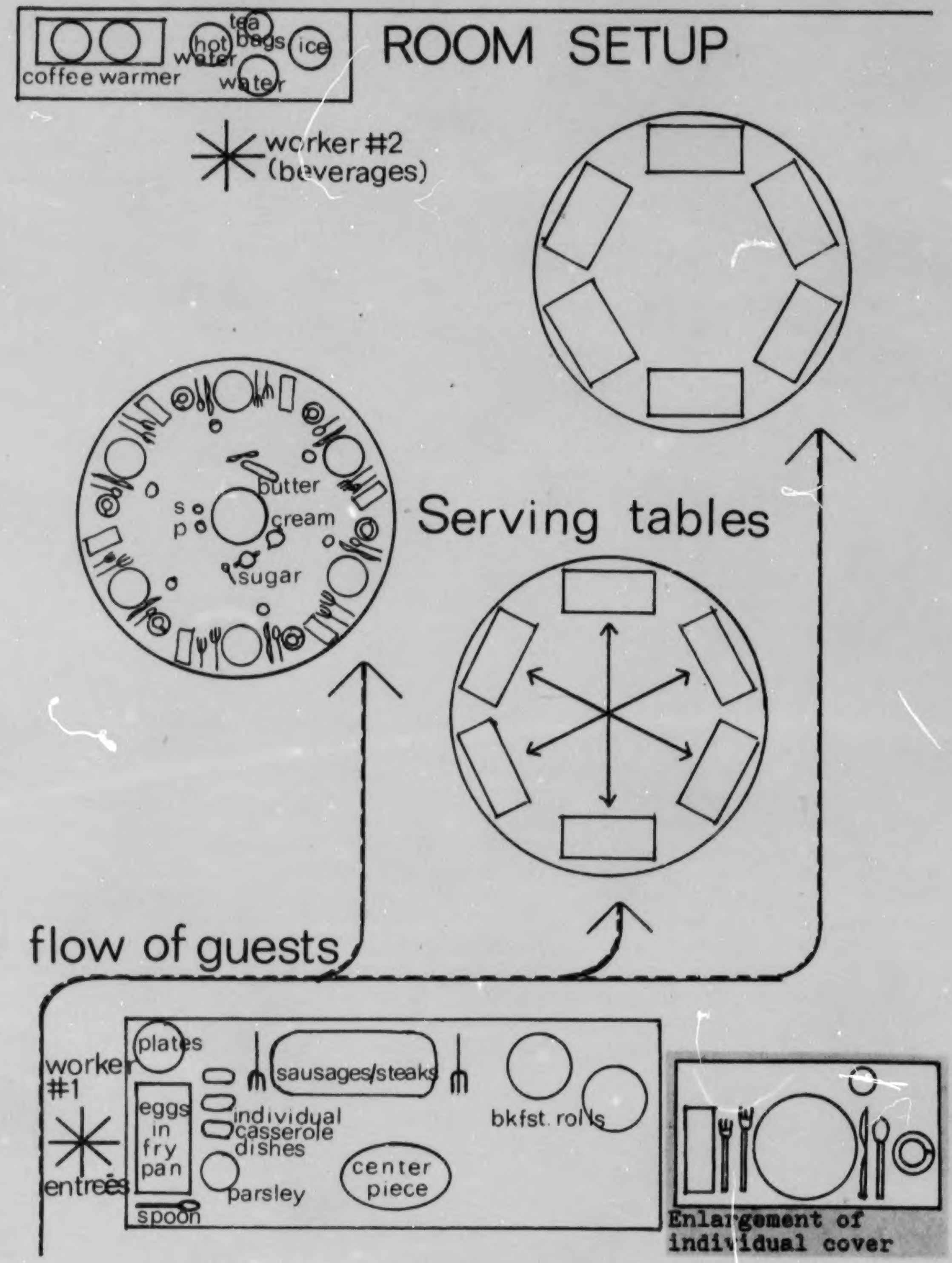
Pineapple (5)	$ 4.90
Cantaloupe (3)	1.50
Powdered Sugar	.40
Maraschino Cherries	.49
Eggs	2.25
Seasoning	.14
Oil	.11
Parsley	.19
Little Smokie Sausages	3.57
Breakfast Steaks	17.55
Seasonings	.48
Rolls	1.09
Shortening	.11
Toppings - Butter	.34
Cinnamon Sugar	.17
Cream Glaze	.26
Cherry	.34
Apricot	.34
Butter	1.02
Cream	.55
Sugar	.14
Coffee	.85
Tea	.14
Ice	.85
Raw Food Total ($2.10/guest)	$37.78 Total

Sample raw food costs for the business breakfast are shown in Figure 5. However, raw food costs are not the only costs. To produce a meal, clean up and other factors must be considered. These require supplies. Table cloths, napkins, cup towels, aprons, and uniforms must be cleaned. Labor is a major cost for most meals. Most food-service managers must also consider overhead including utilities, depreciation of equipment, breakage, pilferage, bookkeeping, rent, etc. as a part of the total cost. In the PELE classroom, some of these factors would not be considered in determining costs. Those most likely to be included are cleaning of towels, aprons, and uniforms; cleaning supplies such as soap; breakage; pilferage; and replacements.

Service Plan *(Take time to plan complete, attractive service details for an outstanding meal. Know that the menu you have planned can be adequately served before you go shopping so if changes are necessary, they can be made.)*

FIGURE 6

ROOM ARRANGEMENT



ROOM SETUP
coffee warmer
hot water
tea bags
ice
water
worker #2 (beverages)
butter
s
p
cream
sugar
Serving tables
flow of guests
worker #1
entrées
plates
eggs in fry pan
sausages/steaks
individual casserole dishes
bkfst. rolls
center piece
parsley
spoon
Enlargement of individual cover

A diagram of the service plan aids in setting up tables, buffet, and side tables quickly and efficiently. Figure 6 illustrates the room arrangement used for the business breakfast. The room arrangement is planned for convenient flow of guests to the buffet and to the tables. Notice that each cover is parallel with the one directly opposite it. An enlarged detail of one cover may aid employees in setting tables. In this situation silver should be placed far enough apart so guests will be able to set a full size plate down without rearranging the cover. Notice the placement of condiments on each table.

The buffet should be arranged conveniently for serving the eggs and so that other items follow in logical order. The side table for beverages should have all supplies needed for serving beverages (coffee and warmer, hot water, tea bags, ice, and water).

A detailed serving procedure should also be developed. It should describe each workers duties during food service as shown in Figure 7.

FIGURE 7

SERVING PROCEDURE

WORKER #	
2	Serve coffee as guests arrive.
2	Begin seating as soon as enough guests have arrived. Fruit compote is already on table.
2	Clear away compote plates as soon as each full table of guests have completed their fruit course.
1	As first table is being cleared, food should be placed on buffet table. Number 1 has been in kitchen completing preparations.
1	Begin serving from buffet.
2	Serve beverages as soon as all compotes have been removed. Apply common sense. If one table is particularly slow, serve beverages to other guests until needed to clear away first course from the slow table.
1	Clear away buffet table.
1	Continue baking breakfast rolls.
2	Re-serve petite assorted breakfast rolls and beverage including water as necessary
1	Begin clean-up in kitchen.

Purchasing *(Group shopping according to location of establishments from which items will be obtained. List locations in logical sequence for single shopping trip. List grocery items in sequence according to floor plan of store to permit one fast, smooth trip through the store. Be sure to double-check grocery list against items on hand to avoid over stocking.)*

Figure 8, page 22, shows the shopping and errand list used prior to the business breakfast.

FIGURE 8

SHOPPING AND ERRANDS FOR BUSINESS BREAKFAST

(1) Cleaners: pick up linen
(2) Dairy: butter pats (Call in order first to have ready.)
(3) Meat Wholesaler: little smokie sausages (3 pkg.) and 3 oz. pieces of breakfast filet steaks (18). (Call in order first, will be ready when you arrive.)
(4) Produce Wholesaler: 5 pineapples, 3 cantaloupe (Call first to assure produce is on hand and company is willing to sell small amounts.)
(5) Grocery Store: maraschino cherries, 6 oz. with stems
powdered sugar, 1 pound
granulated sugar, 1 pound
flour, 2 pounds
yeast, dry, 1 package
cherry jam, 4 oz.
apricot jam, 4 oz.
parsley, 1 bunch
potatoes, 2 medium
pineapples 5--if unavailable at produce wholesaler
cantaloupe 3--if unavailable at produce wholesaler
eggs, 3 dozen

Recipe Development *(The recipe must describe everything you expect the employee to do in clear, concise form utilizing terminology and procedures familiar to employee. There must be a recipe for everything, even use of mixes and preparing beverages.)*

Recipes needed for the business breakfast include:

Potato Refrigerator Rolls
Petite Breakfast Roll Topping
Fruit Compote in Pineapple Boat
Scrambled Eggs
Little Smokie Sausages
Breakfast Steaks
Hot Coffee
Hot Tea

Preparation Plans *(Both preliminary preparation and day-of-service preparation plans must be carefully timed to make laboratory experiences realistic, make the best use of laboratory time, and make certain foods are ready at serving time.)*

Plans must also be developed for preliminary preparation and for day-of-service preparation and serving procedures. The plans developed for the business breakfast are illustrated in Figure 9, page 23, and Figure 10, page 25.

FIGURE 9

PRELIMINARY PREPARATION

(Note: Timing For Experienced Workers)

Time	Worker Number One	Worker Number Two	Time
30 min.	Make potato yeast dough. Set aside in warm place for 2 hours.	Make potato yeast dough. Set aside in warm place for 2 hours.	30 min.
20 min.	Cut pineapples into quarters; core; remove and cube flesh; add sugar.	Cut pineapples into quarters; core; remove and cube flesh; add sugar.	20 min.
5 min.	Wrap shells and refrigerate.	Wrap shells and refrigerate.	5 min.
15 min.	Cut cantaloupe; remove and cube flesh; add to pineapple flesh; cover and refrigerate.	Cut cantaloupe; remove and cube flesh; add to pineapple flesh; cover and refrigerate.	15 min.
10 min.	Clean, trim, and place parsley in plastic bag; seal.	Clean, trim, and place parsley in plastic bag; seal.	10 min.
10 min.	Tidy kitchen.	Tidy kitchen.	10 min.
15 min.	Prepare cinnamon sugar and red and yellow jam glazes. Place in shallow containers and cover.	Season steak with barbeque sauce and spices; place in pan; cover; refrigerate.	15 min.
5 min.	Sift and measure powdered sugar for cream glaze into shallow container and cover.	Place smokie sausages in grill basket with detachable handle. Wrap; refrigerate.	15 min.
5 min.	Place 1/4 pound butter in shallow container and cover.		
5 min.	Refrigerate butter and jams. Fill and cover sugar dishes.		

FIGURE 9 (CONT.)

Time	Worker Number One	Worker Number Two	Time
30 min.	Assemble work trays: Tray #1 tongs, large service platter, large bowl, measuring spoons, wooden spoons, grill basket handle, matches, buffet electric skillet. Tray #2 slotted spoon, ice scoop, paper towels, butter dishes and forks, creamers, sugar dishes and spoons. Tray #3 3 small wire whisks, hot pot holders, waxed paper, cooling rack, serving plates. Check two times for accuracy.	Assemble refrigerator trays: Tray #1 3 dozen eggs, 1/4 c. oil, meats, parsley. Tray #2 pineapple shells, fruit, maraschino cherries, cream, butter pats. Tray #3 toppings Check two times for accuracy.	30 min.
10 min.	Assemble dough handling area. Include cloth, knife, flour, scale, dough. Knead dough.	Grease lightly 4-5 large cookie sheets and enough waxed paper to cover each pan.	10 min.
25 min. 5 min.	Portion dough into 1/2-oz. units. Cover pans with greased wax paper and damp cloth.	Shape dough into desired shapes and place on pans.	30 min.
5 min.	Refrigerate dough.	Disassemble dough handling area.	5 min.
15 min.	Clean kitchen.	Clean kitchen.	15 min.

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FIGURE 10

DAY-OF-SERVICE PREPARATION AND SERVING PROCEDURES

(Note: Timing for two experienced workers)

Time	Worker Number One	Worker Number Two	Time
5 a.m. 5:10	Remove rolls from refrigerator. Remove damp cloths and place rolls in warm (not hot) place to rise, approximately 1-1/2 to 2 hours. Assemble chart with dishes: Silver (check for spots) Salt and pepper shakers Sugar bowls (check if full) Coffee warmer Buffet plates, casseroles, serving pieces.	Double-check placement of tables in dining area. Cover with table pads and cloths. Double-check cloths for evenness. Place center pieces on each table and on buffet. Fold napkins.	5 a.m. 5:20
5:30	Set Tables	Set Tables	5:30
6:00	Set up three work areas of kitchen: (1) meat and egg preparation, (2) fruit compote assembly, (3) roll assembly.	Assemble butter dishes, cream service. Crack eggs for scrambling; refrigerate.	6:00
6:15	Break prior to guest arrival. Double-check grooming, etc.	Break prior to guest arrival. Double-check grooming, etc.	6:15
6:20 6:45	Light grill. Melt butter. Make creamy glaze. Double check rolls. If not rising fast enough place in much warmer location. Place first pan of rolls in the oven. Grill smokies. Place on high rack. Begin grilling steak. Begin scrambled eggs. Finish steaks.	Fill ice water glasses; place on table along with butter and cream. Assemble fruit compote at tables. Serve arriving guests coffee. Keep at least three pots made. Double check to see if rolls are in. When ready, remove from oven, top, place on serving plate. Keep warm. Assist with scrambling eggs. Remove scrambled eggs to buffet table.	6:20 6:30 6:40 6:50

FIGURE 10 (CONT.)

Time	Worker Number One	Worker Number Two	Time
7:05	Put second batch of rolls in oven. Assemble meat platter. Place on buffet table.	Begin picking up compotes and serving coffee and tea.	7:05
7:15	Begin serving scrambled eggs. Double check rolls. Remove and add topping. Replenish serving plates. Place third batch in oven.	Serve rolls. Refill coffee and tea.	
7:20	Remove buffet table set up and begin kitchen clean-up.		
7:25	Rolls--remove from oven and top. Place fourth batch in oven. Continue clean up.	Serve rolls. Refill coffee and tea.	
7:35	Remove fourth batch rolls and top.	Serve rolls.	
7:45	Continue clean-up	Assist with clean-up.	
9:00	Continue clean-up	Assist with clean-up.	

Evaluation *(Consider critically every phase of the food function. What were the strong and weak points. How might improvement be made? Forms can be useful or evaluation may be as informal as a discussion.)*

The evaluation form shown in Figure 11 was used to evaluate the business breakfast prepared by the caterer and an assistant.

FIGURE 11

EVALUATION FORM

	Out-standing	Above Average	Average	Below Average	Unsatis-factory	Comments
	5	4	3	2	1	
Menu	X					
Cost	X					
Purchasing	X					
Recipes		X				
Production (overall)		X				
Worker I	X					
Worker II			X			Slow
Service (overall)			X			Some confusion
Worker I			X			
Worker II			X			
Clientele Reaction	X					Excellent

Laboratory Management

The PELE laboratory must be managed efficiently for successful operation of the program. Effective laboratory management involves development of procedures for controlling equipment and supplies, maintaining laboratory facilities and equipment, organizing students, evaluating students' laboratory work, and sometimes sharing the laboratory with other teachers.

Storage

For best utilization of facilities and resources, an effective storage system must be organized. Some suggestions for storage in the PELE Food Service laboratory include:

1) A locked storeroom should be used for dry storage of nonperishable foods.

2) Locked storage should be used for cleaning supplies and infrequently used equipment.

3) Refrigerator and freezer space should be used to store perishable and frozen foods. Keeping locks on these are common food service policy and help to prevent pilferage. Refrigerators and freezers should be checked regularly to make sure that food items are being stored at correct temperatures.

4) Open storage such as wall-hung shelving, overhead hooks, and mobile racks or shelves should be provided for dishes, pots and pans, and utensils.

5) Drawers in worktables should be used for small equipment.

6) Space for sorting and shelving linens should also be provided.

Issuing

Supplies should be issued in the PELE Food Service laboratory using a system which eliminates confusion, insures efficient supply distribution, and maintains inventory control. Correct procedures must be followed in the issuing of supplies. In food service laboratories:

1) To obtain supplies, workers must complete a requisition form listing the supplies needed. It should state the quantity, size, and/or grade of each item needed.

2) The student assigned the role of storeroom supervisor and the teacher must sign the form before the order can be filled.

3) The storeroom worker then fills the requisition. This worker should not issue any supplies without a signed requisition.

Supply distribution methods selected for use in the PELE laboratory should be similar to those used in the food service industry. The distribution system should be clearly understood by the students.

Every food service establishment is different. Supervisors in two food service businesses may require very different procedures to be followed in the performance of the same task. Since there is no one correct way to perform any food service task, food service students should learn that following instructions given by future employers is very important even if it means using different methods than those taught in the PELE Food Service laboratory. A proper attitude and sense of responsibility are two of the major assets an employer seeks when hiring someone to work in a food service establishment.

Just as in any other operation, certain lines of authority exist in the operation of food service establishments. Lines of authority indicate that specific relationships exist between various departments of the facility and between individuals working there. Personnel need to know the lines of communication and authority. Employees must know their duties, authority, responsibilities, and to whom they are accountable. These same conditions should exist in the PELE Food Service laboratory. Students need to learn correct procedures for communicating with the right people and for following lines of authority.

Safety

Many work-related accidents occur every year in the food service industry. The most common reason for such accidents is carelessness. Thus, thorough skill preparation and good safety training are vital parts of the training which food service workers need before they can perform adequately and safely on the job.

Accident-prevention programs in the PELE laboratory must be sufficiently comprehensive to allow for the inexperience of the students. The teacher should try to minimize equipment hazards and place major emphasis on safety in both the laboratory and the classroom. Students should be encouraged to teach and assist each other in correcting unsafe practices. If such unsafe practices are not changed, the teacher should be notified. Students should also be instructed to report any unsafe conditions which they observe in the laboratory and classroom so that measures can be taken to correct the situations before accidents result.

In food service establishments, the most common accidents are cuts, burns, slips, falls, collisions with persons or equipment, strains from improper lifting, and injuries resulting from fires and explosions. Often, accidents happen because of improper use of equipment such as holding the blade of the knife toward the hand while cutting. Because food preparation and service involve the use of glass, hot liquids, sharp instruments, power-operated equipment, and hot cooking surfaces, employees constantly work under hazardous conditions. Students should be taught to properly assist each other when accidents occur and to follow correct procedures for reporting all accidents which happen in the laboratory and classroom. Customers can be safeguarded by built-in safety features such as entrances and exits for easy flow of traffic; fireproofing and fire equipment; proper arrangement and installation of equipment; and well-trained students.

Fire Safety

Fire presents a great hazard in school food service laboratories. A complete fire prevention program is needed. The program should include prevention, containment, extinguishing, and building evacuation plans. Students should be taught correct procedures to follow regarding when and how to notify supervisors, fire department and hospitals (if needed) when a fire occurs.

The most common places fires occur in food service establishments are in or around deep fat fryers, ranges, and broilers. Fire extinguishers should be located near hazardous areas in the laboratory. Thoroughly cleaning these pieces of equipment helps to prevent fires. A container of baking soda, easily accessible, enables the cook to put out a minor grease fire on the range or on other equipment. If a grease or oil fire occurs in a pan, place a cover over the pan and turn the heat off. Never use water on a grease fire because water will spread the fire. A plan for evacuating customers is essential.

First-Aid

Many opportunities exist in food service establishments for customers or employees to have accidents which may require immediate attention. Food service employees need to know the correct procedures to follow if such a situation occurs. Instruction in first-aid procedures should be taught by an expert on the subject. If the PELE Food Service teacher is not a certified first-aid instructor, contact the American Red Cross for assistance. Students and employees should not perform any kind of first-aid treatment until they have been properly trained. Just as important as knowing how and when to administer minor first aid treatment, is knowing when not to administer first-aid.

Procedures to Aid a Choking Person

It is very common in food service establishments for a customer to become choked. If proper procedures are not followed to help the person, the outcome can be fatal. PELE food service students should be taught the correct safety procedures to follow in assisting a choking person.

Sanitation

Many opportunities exist during the performance of food service tasks for harmful bacteria to be spread among employees and to customers. Thus, sanitation rules should be carefully followed in every phase of the food service operation to avoid the spread of bacteria. The areas of emphasis which are important in setting up good sanitation programs in food service departments include:

1) Personal habits and hygiene

2) Handwashing procedures

3) Dishwashing procedures

4) Warewashing procedures (pot and pan washing)

5) Care of kitchen equipment

6) Sanitary procedures for cleaning and sanitizing physical facilities

7) Garbage and pest control

8) Sanitary procedures for purchase and storage of food

9) Bacterial contamination of food

10) Sanitary procedures for preparing food

11) Sanitary procedures for serving food.

The information included in the PELE Food Service Guidebook was organized to provide the PELE Food Service teacher with guidelines for planning, implementing and evaluating the total PELE program. All phases of laboratory and classroom instruction should be organized to work toward the goal of making the PELE Food Service program a major factor in the employability of students.

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FIGURE 1

HOMEMAKING EDUCATION
TEXAS EDUCATION AGENCY

SUGGESTED EQUIPMENT LIST FOR HOME ECONOMICS PRE-EMPLOYMENT LABORATORY EDUCATION FOOD SERVICE PROGRAM

The following list of equipment is suggested for a Homemaking Education Pre-Employment Laboratory Education Food Service program designed to train regular high school students as commercial food service employees. The course may be offered in grades 10-12. A maximum of six semester units or 12 quarter units may be earned.

The equipment list with suggested floor plan is recommended for a commercial foods laboratory planned for 15-20 students. Minimum space requirement for the laboratory is 1,632 square feet.

Local needs and employment opportunities in the community should be considered in determining the equipment actually needed to provide laboratory experiences which will develop entry level occupational skills in commercial food service.

Within funds available, equipment on this list is approvable and reimbursable according to the district's current percentage assignment applicable to all federal funds distributed to the district for vocational education.

Please note the nonreimbursable items which are listed separately and are to be purchased with local funds. The items so listed are essential for the program but do not qualify for reimbursement as equipment.

When a Pre-Employment Laboratory Education Food Service program has been allocated to a school, the procedure for applying for equipment approval and reimbursement is as follows:

1) Consult with the area homemaking education consultant serving the school district regarding floor plan and equipment.

2) Select items to be purchased from bids submitted according to the local school district policy.

3) Complete the Reimbursable Equipment Schedule, Form TEA-221, according to the instructions accompanying the form. List major equipment (items costing $100 or more per unit) and minor equipment (items costing less than $100 per unit) on separate schedules. All items listed must be properly and adequately described including size and capacity when applicable.

4) Send three copies of the Reimbursable Equipment Schedule to the Director of Secondary Programs, Department of Occupational Education and Technology, Texas Education Agency, 201 East 11th Street, Austin, Texas 78701.

MAJOR EQUIPMENT
($100 or more per unit)

Major Equipment	Minimum Number
COMMERCIAL FOODS	
Cart, holding	1
Cart, mobile utility	1
Cash Register, small with tape	1
Charbroiler, grid surface approximately 18" x 18", w/grease receptacle	1
Coffee Brewer, pour through w/warmer; 2 pots, 12 cup capacity each	1
Dishwasher, pull through type w/booster heater and 2 dish tables, disposer w/18" cone in scrapping table	1
Dryer, clothes; small commercial type	1
Food Cutter with attachment hub; stainless steel bowl approximately 15"; bowl cover; chopping and power dicer attachments	1
Freezer; single door, capacity 25 cubic feet	1
Fryer, Deep Fat; 15 lb. capacity; 1 basket full size and 2 baskets twin size; w/safety thermostat	1
Griddle; width 36", depth 24"	1
Hood and Exhaust Fan w/filter over cooking section	1
Ice Machine w/water filler and storage bin; production capacity 250 lbs.; flaker or cuber	1
Malt Mixer w/triple spindle and stainless cups	1
Mixer; heavy duty, 10 quart w/stand	1
Oven, Convection; single section	1
Oven, Microwave	1
Pot and Pan Sink Unit with drainboards; 2 compartments if sterilization is by hot water; 3 compartments if sterilization is by sanitizing solution	1
Range, Commercial Open Burner; 6 burners with bake oven and high shelf	1
Refrigerator; commercial; 2 doors; 47 cubic feet capacity	1
Salad Preparation Unit with 2-compartment sink and garbage disposer	1
Server, Hot Food (Bun Warmer); 1 drawer	1
Serving Line; sneeze guard; cold pan unit for ice; hot food unit with 4 wells, pans and covers; refrigerated sandwich unit, 5 to 6 containers with covers; tray stand	1
Slicer; capacity - food up to 12" in width and 7-1/2" in diameter	1
Steam Cooker; single compartment; capacity - to accommodate three 12" x 20" x 2-1/2" pans or two 12" x 20" x 4" containers; with cafeteria pans and one wire basket	1

Major Equipment	Minimum Number
Storage Units:	
Dish Storage; flat shelving, louvered or perforated; 4 shelves high, 12" to 15" wide, and 6' long	1
Pot and Pan Storage; flat shelving, louvered or perforated; 5 shelves high; 27" wide, 60" long, with the following clearances: 20" bottom shelf, 16" second shelf, 10" two upper shelves, 6" clearance to floor below bottom shelf	1
Tables and chairs for serving area	To Seat 24 Persons
Toaster, automatic, 4 slices, commercial	1
Vacuum Cleaner, commercial w/attachments	1
Washer, Clothes, small commercial	1
Work Tables:	
Bakers Table; 7' x 3'; stainless steel surface; w/bins and drawers; casters w/brakes	1
Work Table; 7' x 3'; stainless steel surface; 2 triple drawer assemblies; casters w/brakes	1
Work Table; 27" x 31", stainless steel surface; with pan slides for 18" x 26" or 14" x 18" pans or trays; 4-1/2" spacing between slides; equipped with pans; casters w/brakes	1
Work Table; 24" x 24", stainless steel surface, undershelf; casters w/brakes; to be used with ice machine	1

MINOR EQUIPMENT
(less than $100 per unit)

Minor Equipment	Minimum Number
COMMERCIAL FOODS	
Beaters, rotary	2
Beaters, wire wisk	2
Beverage Servers	2
Board, cutting (plastic or rubber)	1
Boards, pastry (plastic or rubber)	2
Bowls, mixing	
3-4 quarts	4
6-8 quarts	4
12-16 quarts	2
Brushes	
Pastry	2
Pot	2
Vegetable	2
Wire scrub	2
Bucket, Mop--26 qt. on casters w/removable wringer	1
Colander	1
Containers, for dry ingredients; plastic w/lids, 2 to 4 gallon size	1 container for each type dry ingredient
Cookie Press	1
Cruets, vinegar and oil	4
Cutlery	
Boning, w/flexible narrow blade	2
Boning, w/stiff wide blade	2
French	2
Paring	6
Peeler	6
Slicer, ham or roast	1
Slicing Knife, electric	1
Cutlery Racks	2
Decorating Equipment	
Pastry Bags	2
Tube Sets	2
Dispensers	
Catsup	4
Mustard	4
Napkin	4
Salad Dressing	4
Straw	1
Toothpick	1
Food Warmer, portable infra-red	1
Forks, serving	4
Funnel	1

Minor Equipment	Minimum Number
Garbage Cans, large size on casters; for use inside laboratory	2
Ice Cream Dishers	2
Ladles	2
Measures	
1 cup size, graduated in 1/4 cups	3
1 quart size, graduated in cups	2
2 quart size, graduated in cups	2
1 gallon size, graduated in quarts	2
Mixer, heavy duty domestic	1
Molds, individual gelatin	3 dozen
Openers	
Can, heavy duty commercial table model	1
Can and bottle, hand type	5
Pastry Wheels	3
Pie Marker	1
Pie Servers	2
Pots and Pans	
Bake Pans	6
Bun and Sheet Pans	8
Cake Pans	6
Corn Stick Pans	4
Double Boilers, 12 quarts	2
Fry Pans, 10"	2
Fry Pans, 12"	2
Muffin Pans	6
Pie Pans	6
Pizza Pans	4
Roast Pans	4
Sauce Pans, 2 quarts	2
Sauce Pans, 4 quarts	2
Sauce Pans, 7 quarts	2
Stock Pots, 8 quarts	2
Stock Pots, 12 quarts	2
Stock Pots, 20 quarts	2
Utility or Dish Pans	2
Pressure Sauce Pan	1
Punch Bowl	1
Punch Cups	36
Punch Ladle	1
Racks, Cooling	6
Refrigerator Containers w/covers; assortment of sizes from 2 quarts to 22 quarts	10
Rolling Pins	2
Salt and Pepper Shakers	6 sets
Scales, 25 lb. commercial portion type	1

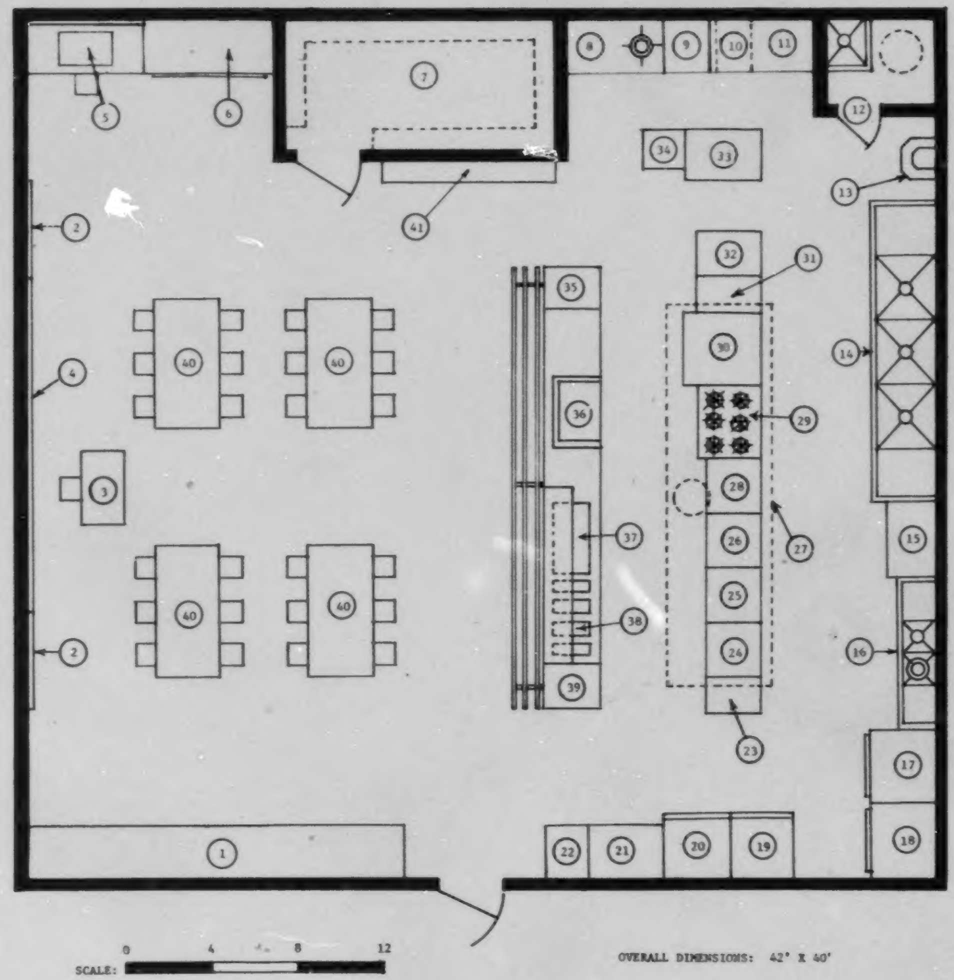
Minor Equipment	Minimum Number
Scoops:	
No. 6, 2/3 cup	1
No. 8, 1/2 cup	1
No. 12, 1/3 cup	1
No. 16, 1/4 cup	1
No. 20, 3 tablespoons	1
Scrapers, Bowl	2
Scraper, Griddle	1
Silverware Container, 4 compartments	1
Shakers	2
Shears, kitchen	1
Sieve, flour	1
Spatulas, narrow blade	2
Spatulas, wide blade	2
Spoons	
Measuring, sets	6
Mixing, solid	4
Mixing, perforated or slotted	2
Steel, Sharpening	1
Sugar Bowls and Creamers	6 sets
Syrup Pitchers	4
Table Service	
Dinnerware	
Dinner Plates	36
Bread and Butter Plates	36
Salad Plates	36
Soup Bowls	36
Fruit Dishes	36
Cups	36
Saucers	36
Flatware	
Knives	36
Forks, Dinner	36
Forks, Salad	36
Teaspoons	72
Iced Tea Spoons	36
Soup Spoons	36
Glassware	
Water Glasses	36
Tea Glasses	36
Juice Glasses	36
Sherbet Dishes	36
Tea Urn	1
Thermometer, Candy	1
Thermometer, Roast	1
Thermometers for checking	
Griddle temperature	1
Oven temperature	1
Refrigerator temperature	1

Minor Equipment	Minimum Number
Timer	1
Tongs	1
Trays, serving	36
Turners, hamburger	2
Turners, spatula	2

NONREIMBURSABLE ESSENTIAL ITEMS TO BE PURCHASED LOCALLY

Item	Number
COMMERCIAL FOODS	
Brooms, push and upright	To be determined by need
Dish Cloths	"
Dish Towels	"
Dust Pans	"
Fire Extinguisher	1
Laundry Baskets	2
Mops	To be determined by need
Pot Holders	"
Table Linens	
Napkins	"
Place Mats	"
Tablecloths	"

HOMEMAKING EDUCATION HIGH SCHOOL PELE FOOD SERVICE
SUGGESTED FLOOR PLAN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SCALE: 0 4 8 12

OVERALL DIMENSIONS: 42' X 40'

LEGEND	
1.	INSTRUCTIONAL MATERIALS STORAGE
2.	TACKBOARD
3.	TEACHER'S DESK WITH CHAIR
4.	CHALKBOARD
5.	GROOMING TABLE WITH MIRROR AND CHAIR
6.	CLOTHES STORAGE WITH DOOR MIRROR
7.	STORAGE
8.	SCRAPPING TABLE
9.	DISHWASHER
10.	BOOSTER HEATER (UNDER COUNTER)
11.	DISH TABLE
12.	MOP SINK AND WATER HEATER
13.	LAVATORY
14.	POT SINKS
15.	POT AND PAN STORAGE
16.	VEGETABLE SINK AND DISPOSAL
17.	REFRIGERATOR
18.	FREEZER
19.	WASHER
20.	DRYER
21.	PORTABLE UTILITY TABLE
22.	ICE MAKER WITH GLASS FILLER
23.	WORK TABLE
24.	STEAMER
25.	FRYER
26.	CHARBROILER
27.	VENT HOOD
28.	GRIDDLE
29.	RANGE (6 BURNER WITH OVEN)
30.	CONVECTION OVEN
31.	MICROWAVE OVEN
32.	WORK TABLE
33.	BAKER'S TABLE
34.	MIXER WITH STAND
35.	CASHIER'S STAND
36.	SANDWICH UNIT
37.	COLD PAN
38.	HOT FOOD UNIT
39.	TRAY STAND
40.	STUDENT TABLE WITH 6 CHAIRS
41.	DISH STORAGE

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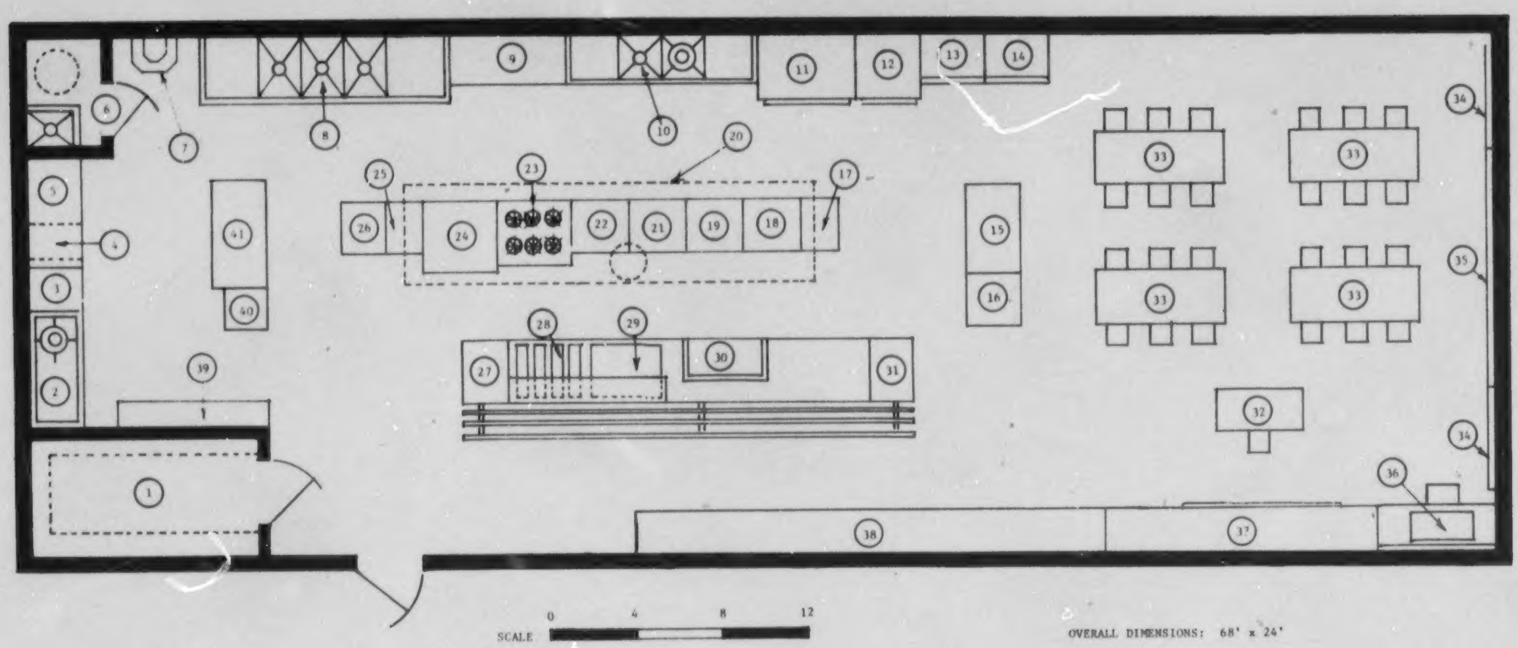
HOMEMAKING EDUCATION HIGH SCHOOL PELE FOOD SERVICE
SUGGESTED FLOOR PLAN

LEGEND					
1.	STORAGE	15.	PORTABLE UTILITY TABLE	28.	HOT FOOD UNIT
2.	SCRAPPING TABLE	16.	ICE MAKER WITH GLASS FILLER	29.	COLD PAN
3.	DISHWASHER	17.	WORK TABLE	30.	SANDWICH UNIT
4.	BOOSTER HEATER (UNDER COUNTER)	18.	STEAMER	31.	CASHIER'S STAND
5.	DISH TABLE	19.	FRYER	32.	TEACHER'S DESK WITH CHAIR
6.	MOP SINK & WATER HEATER	20.	VENT HOOD	33.	STUDENT TABLE WITH 6 CHAIRS
7.	LAVATORY	21.	CHARBROILER	34.	TACKBOARD
8.	POT SINKS	22.	GRIDDLE	35.	CHALKBOARD
9.	POT & PAN STORAGE	23.	RANGE (6 BURNER WITH OVEN)	36.	GROOMING TABLE WITH MIRROR
10.	VEGETABLE SINK & DISPOSAL	24.	CONVECTION OVEN	37.	CLOTHES STORAGE WITH DOOR MIRROR
11.	REFRIGERATOR	25.	MICROWAVE OVEN	38.	INSTRUCTIONAL MATERIAL STORAGE
12.	FREEZER	26.	WORKTABLE	39.	DISH STORAGE
13.	WASHER	27.	TRAY STAND	40.	MIXER WITH STAND
14.	DRYER			41.	BAKER'S TABLE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OVERALL DIMENSIONS: 68' x 24'

SECTION TWO

FOOD SERVICE CURRICULUM

FOOD SERVICE COMPETENCIES

Upon completion of two years in the PELE Food Service program, students should have acquired the competencies required of entry-level food service employees. The food service program should provide instruction in all of the competencies listed below.

Ability to maintain high standards of personal and professional characteristics which are necessary for success in food service jobs.

Ability to utilize commercial food service equipment correctly and safely.

Ability to utilize high sanitation standards in personal grooming and hygiene as related to food service work performed.

Ability to comply with high standards of sanitation in all phases of food handling.

Ability to manifest high safety standards in performance of preparation, service, and clean-up tasks in food service establishments.

Ability to manage the receiving, storing, and issuing of foods and supplies for food service establishments.

Ability to utilize appropriate pieces of small equipment used for food preparation and service.

Ability to utilize large equipment for food preparation and service using correct procedures and following safety guidelines.

Ability to utilize large equipment for cooking food using correct procedures and following safety guidelines.

Ability to utilize appropriate procedures and equipment in all food preparation tasks.

Ability to coordinate various phases of meal planning, preparation, and service to insure customer satisfaction.

Ability to achieve quality standards when preparing various dishes and products for food service using spices, herbs, and flavorings.

Ability to achieve quality standards in preparing various appetizers and garnishes and in garnishing foods for service.

Ability to attain quality standards in preparing various non-alcoholic beverages for service in food service establishments.

Ability to prepare various types of hot and cold sandwiches for commercial food service, achieving quality products.

Ability to attain quality standards and variety in preparing fruits and vegetables for meal service.

Ability to produce quality salads and salad dressings for service in food service establishments.

Ability to achieve quality standards in preparing various types of soups, sauces, and gravies for service in food service establishments.

Ability to prepare various cereals and macaroni products for commercial food service, adhering to quality standards.

Ability to produce quality standards in preparation of eggs and various egg dishes for service.

Ability to attain quality products when preparing cheeses and various cheese products for service in food service establishments.

Ability to achieve quality standards in preparing various types of meats, seafoods, and poultry for service in food service establishments.

Ability to attain quality standards in preparation of various quick breads and yeast breads for service in food service establishments.

Ability to produce quality standards in preparing various types of fruit desserts and fried desserts for service in food service establishments.

Ability to achieve quality standards in preparing various types of desserts for service in food service establishments.

Ability to produce quality cakes and cookies for service in food service establishments.

Ability to achieve quality standards in preparing various types of pies, pastries, and meringues for service in food service establishments.

Ability to display skills in performance of opening and closing duties in food service establishments.

Ability to display skills in performance of bussing duties in food service establishments.

Ability to assume responsibility related to performance of food service tasks in various types of food service establishments.

Ability to demonstrate skills in performance of business transactions involving money exchange in food service establishments.

Ability to perform various tasks before, during, and after service of food to patients.

Ability to demonstrate skills in performance of various catering tasks before, during, and after service of food to customers.

INTRODUCTION TO THE FOOD SERVICE INDUSTRY

SUBJECT: Orientation to the Food Service Industry

COMPETENCY: Ability to maintain high standards of personal and professional characteristics which are necessary for success in food service jobs.

OBJECTIVES: Create a positive attitude toward the food service industry in American life.

Point out the variety of opportunities and rewards of employment in food service.

Describe competencies needed and tasks to be performed by food service employees.

Summarize personal qualities necessary for being a successful employee.

Relate knowledge of employment opportunities and job responsibilities in the food service industry to the performance of food service tasks.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
(NOTE: There are no specified sub-competencies for this area since it includes basic introductory information.)		Importance of food service industry Employment opportunities in the food service industry Labor laws and regulations Tasks performed by food service employees Personal requirements of employees in the food service industry Job attitudes Employee's responsibilities

INTRODUCTION TO THE FOOD SERVICE INDUSTRY

SUBJECT: Orientation to Laboratory--Food Service Equipment

COMPETENCY: Ability to utilize commercial food service equipment correctly and safely.

OBJECTIVES: Demonstrate functions of major pieces of commercial food service equipment.

Arrange food service equipment for various situations.

Follow established guidelines and rules voluntarily when working in the food service laboratory.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
(NOTE: There are no specified sub-competencies for this area since it includes basic introductory information.)	Observe the basic set-up of the food service laboratory.	Food service work setting
	Identify major pieces of commercial equipment.	Names and functions of major pieces of commercial food service equipment
	Relate each piece of major equipment to its functions in the laboratory.	
	List the rules and guidelines outlined for use of major food service equipment.	Rules and guidelines to follow in the use of commercial food service equipment
	Determine reasons for safety rules for operation of food service equipment.	
	Follow manufacturers' instructions and teacher's rules and guidelines for operating food service equipment in the laboratory.	

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SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Identify unsafe practices observed in the laboratory. Encourage other food service workers to follow safety guidelines when unsafe conditions or practices exist in the laboratory. Report to the teacher any unsafe practices which might endanger someone.	

SUBJECT: Personal Hygiene

COMPETENCY: Ability to utilize high sanitation standards in personal grooming and hygiene as related to food service work performed.

OBJECTIVES: Analyze the need for food service employees' performance of personal hygiene and good grooming practices.

Develop guidelines of personal hygiene and grooming necessary for food service.

Practice principles of personal hygiene and good grooming related to food service work.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
Display good grooming habits for performance of food service work.	Follow guidelines for good personal hygiene and grooming. Evaluate own personal hygiene and grooming. Observe other students' demonstration of good personal grooming habits. Wear head cover, as directed, when performing food service work. Wear proper attire for food service work.	Personal hygiene Principles of grooming related to food service work

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First Year
* Beginning level first year, advanced level second year
** Second Year

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Observe guidelines for proper posture while working.	
Prevent contamination of food by using proper handwashing procedures.	Follow proper handwashing procedures prior to and during food preparation and service.	Handwashing procedures

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INTRODUCTION TO THE FOOD SERVICE INDUSTRY

SUBJECT: Sanitation

COMPETENCY: Ability to comply with high standards of sanitation in all phases of food handling.

OBJECTIVES: Explain need for following sanitary procedures when working in commercial food facilities.

Demonstrate sanitary procedures which follow legal sanitation regulations.

Demonstrate proper procedures for maintaining a clean and sanitary food service operation.

Utilize proper sanitation procedures in washing, drying, handling, and storing dishes and utensils.

Practice high standards of sanitation in all phases of food handling.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
* Follow sanitation guidelines.	Practice sanitary procedures in the food service laboratory. Report failure to observe legal sanitation regulations to teacher. Evaluate laboratory sanitation conditions according to established criteria. Improve sanitation practices in the laboratory, as needed.	Federal, state, and local sanitary requirements for food service operation
* Prevent food-borne illnesses by using proper sanitation guidelines in handling and storing foods.	Follow sanitation and safety practices when handling foods.	Food-borne illnesses and their causes

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SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Store and hold foods at proper temperatures, in correct quantities, and in appropriate containers to prevent bacterial growth.	
Taste foods during food preparation using sanitary procedures.	Taste foods using correct procedures.	Sanitary procedures for tasting foods
* Detect possible food spoilage.	Check all foods for signs of spoilage.	Food spoilage
	Report any signs of food spoilage to teacher.	
* Prevent chemical poisoning of foods.	Store and label all chemicals properly.	Chemical poisoning
	Select utensils that are clean and free of corrosion.	
	Wash fruits and vegetables to remove pesticides, as directed.	
Use sanitation guidelines for disposal of waste.	Remove waste from laboratory areas, as needed, to insure sanitary conditions.	Waste disposal
	Keep garbage containers tightly covered.	
	Wash garbage containers daily following proper procedures.	
* Protect food against pollution from pests.	Inspect laboratory for pests.	Pest control

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Report any signs of pests in the laboratory to the teacher.	
	Kill pests using safe and sanitary methods.	
	Wash dishes and utensils promptly after use.	
	Keep foods covered as much as possible.	
Clean and sanitize furniture, equipment, floors, and other surfaces in the kitchen and serving areas.	Select the correct materials, tools, and procedures for cleaning and sanitizing furniture, equipment, and other surfaces in the kitchen and serving areas.	Procedures for cleaning and sanitizing physical facilities
	Recognize the role of sanitary facilities in preventing foodborne illnesses.	
	Clean and sanitize counters, chairs, and table tops.	
	Select and utilize appropriate procedures for cleaning floors, windows, woodwork, doors, blinds, light fixtures, and other surfaces.	
Clean and sanitize all surfaces in washrooms.	Select the correct materials and equipment for cleaning and sanitizing surfaces in washrooms.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Clean and sanitize all surfaces in washrooms using correct procedures.	
	Wash hands carefully when completed with cleaning of washrooms.	
Follow sanitary procedures in caring for cleaning tools used in the food service establishment.	Follow proper procedures in cleaning mops, mop buckets, wringers, vacuum-type machines, brushes, rags, sponges, and other tools used to clean the laboratory.	Care of cleaning tools
Care for and store linens. (NOTE: Many food service establishments and laboratories send linens out for service. This task may be included in instruction if the teacher considers it appropriate for the situation.)	Use the correct procedure for removing stains from linens.	Procedures for removing stains from linens
	Wash and dry linens using correct materials, equipment, and procedures.	Procedures for washing and drying linens
	Fold linens correctly for storage.	Procedures for storing linens
	Store linens following correct procedures.	
* Perform sanitation duties according to the cleaning schedule(s) provided.	Follow laboratory cleaning schedule when performing sanitation duties.	Cleaning schedules
Use sanitary procedures when washing dishes in the dish machine.	Carry out sanitary pre-wash procedures to prepare dishes and utensils for washing.	Pre-wash procedures for dishes

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Rack dishes and utensils in dish machine, placing all of one kind together.	Racking dishes in dish machine
	Follow manufacturers' directions for checking necessary points before operating dish machine.	Checklist for operating dish machine
	Follow manufacturers' instructions for operating dish machine.	Operation of dish machine (NOTE: For further details, see Large Equipment for Food Preparation and Service in the EQUIPMENT Unit)
	Unload dish machine.	
	Check dishes and utensils for cleanliness.	Inspection of dishes and utensils for cleanliness
Use sanitary procedures when washing, sanitizing, drying, and storing pots, pans, and other utensils by hand.	Prepare pot and pan sink for washing pots, pans, and other utensils by hand, using proper temperature and amount of detergent.	Washing pots, pans, and other utensils by hand
	Hand wash pots, pans, and other utensils in two or three compartment sink.	
	Rinse utensils in wire baskets and sanitize using proper temperatures and correct procedures.	
	Drain and air-dry pots, pans, and other utensils.	
	Practice picking up dishes and silverware by rims and handles.	Sanitary handling of dishes and silverware

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Become familiar with correct storage places for dishes, silverware, and utensils. Store clean items in the proper manner and place.	Sanitary procedures and proper places for storing dishes, silverware, and utensils

SUBJECT: Safety

COMPETENCY: Ability to manifest high safety standards in performance of preparation, service, and clean-up tasks in food service establishments.

OBJECTIVES: Determine the need for following safety procedures when working in commercial food service facilities.

Determine ways to prevent safety hazards and accidents connected with food service work by observing safety precautions and rules.

Determine correct procedures to follow in various emergency situations which may occur in food service facilities.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
* Point out safety hazards in commercial food service facilities.	Relate the need for safety practices to work done in the food service laboratory.	Need for safety practices
	Investigate the laboratory for possible safety hazards.	Safety hazards
	Identify safety hazards and unsafe practices in the laboratory.	
* Report safety hazards to teacher.	Report any unsafe conditions or practices to the teacher following proper procedures.	Procedures for reporting safety hazards
	Relate procedures for reporting safety hazards in the laboratory to procedures used in reporting safety hazards when employed.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
* Maintain safe working conditions and procedures.	Follow food service laboratory safety rules and precautions.	Safety rules and precautions for food service establishments Selected Occupational Safety and Health Administration (OSHA) regulations
* Report accidents to teacher.	Recognize importance of properly reporting all accidents which occur. Report to the teacher any accidents which occur in the food service laboratory. Fill out required accident reports. Relate procedures for reporting accidents in the laboratory to procedures used in reporting accidents when employed.	Procedures for reporting accidents in food service establishments
Follow fire prevention rules.	Observe fire prevention guidelines and rules when working in the food service laboratory.	Fire prevention in the food service facility
Extinguish fires which occur.	Follow correct procedures for notifying fire department and teacher, as directed, before attempting to extinguish fire. Select correct procedures for putting out specific types of fires.	Procedures for putting out fires

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Locate fire extinguishers in the food service laboratory.	
	Select the correct type of fire extinguisher to be used on different types of fires.	Selection and use of fire extinguishers
	Follow correct procedures when using fire extinguishers.	
Follow correct procedures in emergency situations.	Select appropriate emergency procedures when presented with an emergency situation.	General emergency procedures
* Administer basic first-aid treatment when needed.	Follow correct procedures for aiding employees or customers who are choking.	Procedures for aiding a choking person
	Identify location of first-aid kit in the laboratory.	Basic first-aid treatment -Appropriate times to treat employees or customers
	Apply appropriate techniques for treating minor injuries.	
	Utilize first-aid kit properly in treating minor injuries.	

INTRODUCTION TO THE FOOD SERVICE INDUSTRY

SUBJECT:	Receiving, Storing, and Issuing
COMPETENCY:	Ability to manage the receiving, storing, and issuing of foods and supplies for food service establishments.
OBJECTIVES:	Demonstrate correct procedures used in food service facilities when receiving foods and supply items. Utilize correct procedures for storing of food and non-food items in dry storage areas. Demonstrate correct procedures used in food service facilities for refrigerated storage of perishable foods. Utilize correct procedures for requesting and issuing foods from the storeroom of food service facilities.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
** Utilize appropriate equipment and procedures for receiving foods and supplies.	Relate the need for correct receiving procedures in the laboratory and in food service operations.	Importance of correct receiving procedures in cost control
	Select the appropriate equipment for receiving foods.	Equipment used in receiving foods and supplies
	Make needed adjustments to receiving equipment before using it.	
	Use the receiving equipment in the laboratory correctly.	
** Inspect quantity and quality of items delivered.	Follow correct procedures in counting and weighing all foods and supplies received.	Checking quantity of foods and supplies received

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Check foods received for appropriate standards of quality.	Inspecting foods for quality--standards of quality
** Complete required records when receiving foods and supplies.	Fill out forms used for receiving foods and supplies in the food service laboratory.	Records used when receiving foods and supplies
** Refuse or return any unsatisfactory merchandise to vendor.	Keep appropriate record of any foods which must be refused or returned to vendor.	Refusing and returning merchandise
	Notify teacher immediately of need to refuse or return any merchandise to the vendor.	
	Follow appropriate procedures for notifying the vendor of need to return any merchandise.	
* Transport goods to and from storage areas.	Select appropriate equipment for moving goods to and from storage areas.	Moving goods to and from storage
	Move food items to and from storage areas following proper procedures.	
* Store items in dry storage area, freezers, and refrigerators.	Utilize appropriate food storage techniques which aid in conserving nutrients.	Effects of storage on the nutritional content of foods
	Identify area for dry storage in the food service laboratory.	Foods which require dry storage
	Separate foods which require dry storage from other items.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Arrange foods for dry storage according to instructions given by teacher.	Arrangement of foods in dry storage area
	Keep items in order with labels toward the front.	Guidelines for dry storage of foods
	Stack boxes and cans so that there is no chance of their falling.	
	Follow correct sanitation procedures in the storeroom to prevent food spoilage and damage from pests.	
	Cross-stack cases and bagged items for ventilation, keeping labels clearly visible.	
	Store appropriate items in metal or plastic containers with tight-fitting covers.	
	Rotate stock so that foods are used on a first-in, first-out basis.	
	Identify food items which require refrigerator or freezer storage.	Items which require refrigerator or freezer storage
	Classify potentially hazardous foods by the temperature at which each should be stored.	Temperatures for storage of potentially hazardous foods

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Check refrigerators and freezers for proper temperature settings and accuracy of thermometer.	
	Mark or tag, as directed, all perishable foods received following correct procedures.	Procedures for marking and wrapping perishable merchandise
	Wrap all foods properly before freezing.	
	Refrigerate or freeze perishable items promptly upon receiving them.	Guidelines for refrigerating and freezing foods
	Arrange foods for best air circulation in refrigerators and freezers.	
	Follow proper guidelines for refrigeration and freezing of foods, rotating stock correctly.	
** Inventory stored foods.	Follow proper procedures for taking inventory in the food service storeroom.	Procedures for taking inventory
Request foods from the storeroom.	Fill out requisition forms for supplies required from storeroom in sufficient time to have items delivered to work station.	Procedures for requesting foods from storeroom
	Secure approval from the teacher or student supervisor before requesting foods from the storeroom.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
** Issue foods from the storeroom.	Follow the rotation schedule for being the storeroom clerk. Check each requisition form carefully before filling it. Fill only requisitions which have been approved.	Procedures for issuing foods

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EQUIPMENT

SUBJECT: Small Equipment for Food Preparation and Service

COMPETENCY: Ability to utilize appropriate pieces of small equipment used for food preparation and service.

OBJECTIVES: Distinguish between various pieces of small equipment and their uses in different food preparation and service tasks.

Demonstrate proper procedures in cleaning and caring for small equipment used in food service work.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
Select, use, and care for hand utensils.	Identify hand utensils used in food preparation tasks.	Hand utensils (Examples: wooden spoon, spatula, ladle, funnel, colander, rolling pin, pastry brush, cooling racks)
	Utilize various hand utensils following correct procedures.	Procedures for using hand utensils
	Care for hand utensils properly.	Care of hand utensils
Select, use, and care for various types of cutting equipment.	Identify the cutting equipment used in food preparation.	Cutting equipment (Examples: knives, kitchen shears, cleaver, potato cutter, butter slicer, cutting board, food chopper)
	Utilize various pieces of cutting equipment following correct procedures.	Procedures for using cutting equipment
	Follow specific safety practices when using knives in food preparation tasks.	Safety practices for using cutting equipment

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Wash, dry, and store cutting equipment in a safe manner.	Care of cutting equipment
Operate and care for the commercial can opener.	Check can opener blade to determine if it is in good condition.	Operation and care of the commercial can opener
	Follow correct procedures for opening cans using the commercial can opener.	
	Perform daily and monthly cleaning of the can opener following correct procedures.	
Use and care for weighing and measuring equipment.	Distinguish between various types of measures used in the laboratory and the types of ingredients they measure.	Measuring equipment
	Follow correct procedures for using standard measurements.	Procedures for using measuring equipment
	Care for measuring equipment properly.	Care of measuring equipment
	Recognize the various types of scales and balances used in food service and their proper uses.	Weighing equipment
	Operate and clean various types of scales used for weighing ingredients in food preparation tasks.	Operation and care of weighing equipment

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
Select, use, and care for various types of pots and pans.	Identify various types of pots and pans used in food preparation tasks.	Pots and pans
	Select pots and pans appropriate for use in various food preparation tasks.	Procedures for using pots and pans
	Utilize various pots and pans following correct procedures.	
	Care for pots and pans properly.	Care of pots and pans
** Select, use, and care for decorating equipment.	Identify various pieces of decorating equipment used for food preparation.	Decorating equipment (Examples: pastry bag, pastry tube, cookie press)
	Select appropriate pieces of decorating equipment for various food preparation tasks.	Procedures for using decorating equipment
	Utilize decorating equipment following correct procedures.	
	Care for decorating equipment properly.	Care of decorating equipment
Select, use, and care for serving equipment.	Identify various pieces of serving equipment used in food preparation tasks.	Serving equipment (Examples: serving utensils, napkin dispensers, condiment containers and dispensers, beverage containers, flatware, dinnerware, straw holders)
	Identify and select the pieces of serving equipment used for various portion sizes and food items.	Procedures for using serving equipment

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SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Utilize serving equipment following correct procedures.	
	Care for serving equipment properly.	Care of serving equipment

EQUIPMENT

SUBJECT: Large Equipment for Food Preparation and Service

COMPETENCY: Ability to utilize large equipment for food preparation and service using correct procedures and following safety guidelines.

OBJECTIVES: Distinguish between various pieces of large equipment used in food preparation and service.

Select appropriate equipment for preparation of various foods.

Demonstrate the functions of various pieces of large equipment used in food preparation and service.

Clean large equipment used in food preparation and service following correct procedures.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
Operate the commercial dish machine.	Identify different types of commercial dish machines. Identify parts of the commercial dish machine. Carry out sanitary pre-wash procedures to prepare dishes and utensils for washing. Load dishes and other utensils in the commercial dish machine, following correct procedures. Check dish machine for appropriate settings and conditions before operating it.	Operation of the commercial dish machine

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Operate the commercial dish machine following correct procedures and checking carefully for proper temperatures.	
Clean the commercial dish machine.	Follow correct procedures for cleaning the commercial dish machine at the end of each washing period.	Care of commercial dish machine
Utilize pot and pan sinks for manual dishwashing.	Clean pots, pans, and other large utensils in a two or three compartment sink.	Use of pot and pan sinks
	Wash, rinse, and sanitize large utensils using appropriate detergent and sanitizing agent in water of correct temperatures.	
Clean the pot and pan sinks.	Clean the pot and pan sinks at the end of each washing period, leaving the equipment ready for its next use.	Care of pot and pan sinks
Operate the garbage disposer to insure sanitary disposer of waste.	Operate garbage disposer following correct procedures.	Operation of garbage disposer
Clean the garbage disposer.	Follow correct procedures for cleaning the garbage disposer.	Care of garbage disposer
Utilize refrigerators for food preparation tasks.	Identify various types of refrigeration units.	Types of refrigerators used in commercial food service facilities
	Follow correct procedures for operating commercial refrigerators.	Use of refrigerators for food storage

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Report to teacher any trouble signals concerning the functioning of refrigerators.	Safety precautions for using refrigerators
	Notify teacher of the need for adjustment, repair, or lubrication of any electrical or mechanical parts of refrigerators.	
* Clean the commercial refrigerators.	Clean the reach-in refrigerator and the walk-in refrigerator weekly following correct sanitation procedures.	Care of refrigerators
Utilize freezers for food preparation tasks.	Identify different types of commercial freezers.	Types of freezers used in commercial food service facilities
	Follow correct procedures for operating commercial freezers.	Operation of freezers for food storage
	Take daily temperature readings to check the performance of freezers.	
	Notify the teacher of any trouble signals noticed in the freezers.	Safety precautions for using freezers
	Notify the teacher of any unusual noises or problems noted with electrical or mechanical parts of freezers.	
* Care for freezers following proper sanitary procedures.	Clean the freezer daily and weekly using correct procedures.	Care of freezers

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Defrost the freezer regularly using correct sanitation and safety methods.	
Operate beverage equipment.	Become familiar with the directions for use of the beverage equipment before operating it. Follow correct procedures for operating the beverage equipment.	Operation of beverage equipment -Coffee urn -Coffee makers -Tea urn -Pumps and dispensers -Malt mixer (shake mixer) -Soft ice cream machine -Ice making machines
* Clean beverage equipment using proper sanitary procedures.	Follow sanitary and safe procedures for cleaning the beverage equipment daily.	Care of beverage equipment
* Operate and clean food slicer using safe methods.	Identify parts and uses of the food slicer.	Operation of the food slicer
	Follow specific directions given for operation of the food slicer.	
	Follow safety precautions and guidelines when cleaning the food slicer.	Care of the food slicer
	Clean the food slicer following teacher's instructions carefully after each use.	
* Operate and clean food cutter or chopper.	Identify parts of the food cutter or chopper.	Operation and care of food cutter or chopper
	Follow teacher's directions carefully when operating and cleaning the food cutter or chopper.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
Operate commercial food mixers.	Identify types of food mixers and functions of each. Identify parts of food mixers and their functions. Utilize various types of beaters, whips, and selected attachments for food mixers appropriately. Operate the food mixer following correct procedures and adhering to safety guidelines.	Operation of food mixers
* Clean commercial food mixers.	Read and follow teacher's directions carefully for cleaning the commercial food mixer. Follow safe and sanitary practices for cleaning the commercial food mixers and attachments regularly.	Care of commercial food mixers
Operate and clean blender.	Operate the blender following teacher's directions and safety practices. Clean the blender following teacher's instructions carefully.	Operation and care of the blender
Utilize and care for salad station unit.	Follow correct procedures for utilizing the salad station unit. Clean the salad station unit properly.	Procedures for use and care of salad station unit

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SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
Utilize and care for the baker's table.	Utilize the baker's table correctly in food preparation tasks.	Procedures for use and care of baker's table
	Care for the baker's table following correct procedures.	
Utilize and care for sandwich station.	Utilize the sandwich station correctly for food preparation.	Procedures for use and care of sandwich station
Operate and clean holding oven.	Utilize the holding oven following correct procedures.	Operation and care of the holding oven
	Care for the holding oven properly.	
Operate and clean steam table.	Arrange foods properly on the steam table.	Arrangement of foods on the steam table
	Use the steam table following correct procedures to keep foods hot.	Operation and care of the steam table
	Clean the steam table using correct materials and water of proper temperatures.	
Operate and care for waterless food warmer.	Use the waterless food warmer following correct procedures.	Operation and care of the waterless food warmer
	Clean the waterless food warmer and serving pads correctly.	
Utilize and care for cold pan unit.	Chill foods in the cold pan unit following correct procedures.	Operation and care of the cold pan unit

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Display salad in the cold pan unit.	
	Clean the cold pan unit regularly using proper methods.	
Operate and clean hot food unit.	Utilize the hot food unit properly.	Operation and care of hot food unit
	Care for the hot food unit correctly.	
Utilize and care for all cafeteria counter units.	Utilize counters for cafeteria service following correct procedures.	Use and care of cafeteria counters
	Care for cafeteria counters properly.	
Utilize and care for side stands.	Utilize side stands appropriately for serving customers.	Use and care of side stands
	Care for side stands following correct procedures.	
Utilize and care for infrared lamps.	Use the infrared lamps in the laboratory properly to keep foods warm.	Use and care of infrared lamps
	Care for infrared lamps properly.	
Operate and care for bun warmer.	Follow proper procedures in using the bun warmer.	Use and care of the bun warmer
	Clean the bun warmer regularly following proper procedures.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
** Utilize and care for food carts equipped with temperature-control devices.	(NOTE: Equipment not available for laboratory experiences. Concept may be developed through field trip to hospital or nursing home.)	Use and care of food carts equipped with temperature-controlled devices
** Use and care for thermal dish trays, plate holders, thermal tray system, and composition plate holder and dome cover.	(NOTE: Equipment not available for laboratory experiences. Concept may be developed through field trip to hospital or nursing home.)	Use and care of thermal dish trays, plate holders, thermal tray system, and composition plate holder and dome cover

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EQUIPMENT

SUBJECT: Large Equipment for Cooking Food

COMPETENCY: Ability to utilize large equipment for cooking food using correct procedures and following safety guidelines.

OBJECTIVES: Associate various pieces of large equipment used for cooking food with their functions.

Demonstrate proper operation and care of large equipment used for cooking food.

Follow safety precautions and sanitary procedures when operating and cleaning large equipment used for cooking food.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
Utilize safety precautions for operating or cleaning large commercial cooking equipment.	Follow safety practices when operating or cleaning large cooking equipment.	Safety precautions for operating large cooking equipment
Operate the toaster.	Operate the toaster following proper procedures.	Operation of the toaster
Clean the toaster.	Follow correct procedures for cleaning the toaster regularly.	Procedures for cleaning the toaster
Operate the electric fry pan.	Operate the electric fry pan properly.	Operation of the electric fry pan
Clean the electric fry pan.	Clean the electric fry pan following correct procedures.	Procedures for cleaning the electric fry pan
Operate the electric range top.	Identify the model of the electric range top in the food service laboratory.	Models of electric ranges and their features

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Note the special features of the electric range top model in the food service laboratory.	
	Preheat the electric range top.	Operation of the electric range top
	Operate the electric range top following correct procedures.	
Operate the gas range top.	Identify the model of the gas range top in the food service laboratory.	Models of gas ranges and their features
	Note the special features of the gas range top model in the food service laboratory.	
	Operate the gas range top following proper procedures.	Operation of the gas range top
Clean range.	Allow the range to cool before cleaning.	Procedures for cleaning the range
	Use appropriate materials and procedures for daily and weekly cleaning of the range.	
Clean exhaust hood.	Wash, rinse, and air dry the grease filters in the exhaust hood weekly.	Care of exhaust hood
	Use proper materials and procedures to clean the exhaust hood periodically.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
Season gas or electric grill.	Season the surface of the grill with unsalted shortening or salad oil as directed before using it.	Procedures for seasoning the gas or electric grill
Operate grill.	Operate the grill following proper procedures.	Operation of the grill
Clean grill.	Clean the grill after each use, using correct materials and procedures.	Procedures for cleaning the grill
	Re-season the grill properly after cleaning it.	
Operate gas or electric broiler.	Preheat the broiler properly.	Operation of broilers
	Adjust the grid to the correct distance from the heat source.	
	Follow proper procedures for operating the broiler units.	
Clean broiler.	Allow broiler to cool before cleaning it.	Procedures for cleaning the broiler
	Clean the broiler using appropriate materials and procedures.	
Operate deep-fat fryer.	Place the correct amount of fat in the kettle of the deep-fat fryer.	Operation of the conventional and pressure type deep-fat fryers
	Operate the deep-fat fryer following safe and correct procedures.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
Clean deep-fat fryer.	Utilize appropriate materials and procedures for cleaning the deep-fat fryer.	Procedures for cleaning the deep-fat fryer
	Strain or filter fat in deep-fat fryer regularly to keep it clean.	Procedures for filtering fat
Operate different types of commercial ovens.	Identify the types of ovens and their functions.	Types of ovens and their functions -Stack or deck -Convection -Rotary -Pizza -Microwave -Reel -Reconstitution
	Preheat ovens properly.	Operation of ovens
	Operate ovens following correct procedures.	
Clean different types of commercial ovens.	Clean ovens regularly using appropriate materials and procedures.	Care of ovens
Operate compartment steamer.	Preheat the compartment steamer properly.	Operation of the compartment steamer
	Select correct type of basket for the food being prepared.	
	Place food in compartment of the steamer.	
	Close and lock the door of the compartment steamer.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Operate the compartment steamer correctly following safe procedures.	
Clean compartment steamer.	Utilize appropriate materials and procedures to clean the compartment steamer.	Procedures for cleaning the compartment steamer
Operate steam-jacketed kettle.	(NOTE: Equipment not available for laboratory experiences. Concept may be developed through field trip to food service facility which uses this equipment.)	Operation of the steam-jacketed kettle
Clean steam-jacketed kettle.		Procedures for cleaning the steam-jacketed kettle
Operate pressure sauce pan.	Follow correct and safe procedures when operating the pressure sauce pan.	Operation of the pressure sauce pan
Clean pressure sauce pan.	Clean the pressure sauce pan using correct materials and procedures.	Procedures for cleaning the pressure sauce pan

QUANTITY FOOD METHODS

SUBJECT: Techniques of Food Preparation

COMPETENCY: Ability to utilize appropriate procedures and equipment in all food preparation tasks.

OBJECTIVES: Follow quantity recipes accurately in preparing foods.

Utilize correct abbreviations, symbols, equivalents, substitutions, and conversions as needed in food preparation tasks.

Differentiate between various food preparation terms and their meanings.

Apply principles of work which conserve time and energy in food preparation tasks.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
Follow appropriate general procedures in all food preparation tasks.	Read the recipe carefully before beginning food preparation. Check to see that all necessary ingredients and equipment are available. Make substitutions in ingredients and equipment as directed. Estimate the time required for preparation of the product. Time preparation to insure that product will be finished when needed.	General food preparation procedures

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Trim and pare only necessary portions of foods.	Effects of preparation on the nutritional content of food
	Wash and soak foods for correct periods of time.	
	Avoid use of excess water which is discarded.	
	Cook foods for correct lengths of time.	
	Reduce amount of food surface area exposed to heat and water.	
Utilize standardized recipes correctly in food preparation tasks.	Identify standardized recipes.	Information included in standardized recipes
	Follow recipe directions carefully to insure quality products.	Procedures for using recipes
	File recipes in the correct place after using them.	
	Relate common abbreviations used in food preparation to the terms which they represent.	Common abbreviations for food preparation terms
* Utilize necessary substitutions commonly used in food preparation tasks.	Refer to accurate information concerning correct substitutions which can be made for various food items.	Substitutions for various food items
	Follow correct procedures for making substitutions for food items.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Use Fahrenheit temperatures and Celsius temperatures as needed.	Temperature measurement -Fahrenheit -Celsius
* Weigh and measure ingredients for food preparation tasks.	Identify the difference between weights and measures.	Weights and measures
	Relate common abbreviations used in weighing and measuring to the terms which they represent.	Abbreviations and symbols which represent weights and measures -Metric -U.S. Standard
		Conversion of measures to weights
	Select the correct weighing or measuring equipment for use in food preparation tasks.	Procedures for weighing and measuring ingredients
	Follow correct procedures in weighing and measuring ingredients.	
	Utilize common equivalents when measuring ingredients in food preparation tasks.	Equivalents of common measures
	Refer to accurate reference(s) to find equivalent weights and measures of common foods.	Equivalent weights and measures of common foods
	Utilize accurate equivalent weights and measures of common foods in food preparation tasks.	
	Select correct can size as directed.	Can sizes and their measurements

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
* Recognize and correctly use food preparation terms.	Relate terms used in meat cookery to food preparation tasks.	Terms used in meat cookery
	Relate terms used in preparation of salads, vegetables, and fruits to food preparation tasks.	Terms used in preparation of salads, vegetables, and fruits
	Relate surface cooking terms to food preparation tasks.	Surface cooking terms
	Relate baking and pastry terms to food preparation tasks.	Baking and pastry terms
Utilize convenience foods in food preparation.	Follow appropriate directions in preparing convenience foods.	Convenience foods
	Add proper amounts of seasonings and spices when preparing convenience foods.	
	Utilize proper equipment in the preparation of convenience foods.	
Portion various foods as directed.	Become familiar with the established list of portion sizes used in the food service laboratory.	Portion control
	Select appropriate equipment for portioning various foods.	
	Use equipment properly in portioning various foods.	
* Plate and garnish foods as directed before serving.	Use appropriately sized plates and other dishes for the sizes of portions being served.	Procedures for plating foods

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Garnish foods attractively and appropriately before serving them.	Procedures for garnishing foods
Hold prepared foods before they are served.	Hold prepared foods in proper containers, in appropriate places, and for safe lengths of time when holding is necessary before service.	Procedures for holding foods
* Utilize time- and energy-saving techniques in performance of tasks.	Utilize labor-saving equipment properly in performance of tasks.	Labor-saving equipment
	Follow instructions for performing tasks in the most efficient manner.	Time- and energy-saving techniques
* Follow work simplification guidelines in meal preparation tasks.	Utilize general work simplification guides in meal preparation tasks.	Work simplification guidelines
* Utilize leftover foods in meal preparation as directed.	Avoid disposing of excess amounts of good leftover foods.	Use of leftover foods
	Prepare leftovers for storage properly.	
	Follow specified directions in using leftovers for further meal preparations.	
	Keep record or inventory of leftover foods as directed.	

QUANTITY FOOD METHODS

SUBJECT: Introduction to Menu Planning

COMPETENCY: Ability to coordinate various phases of meal planning, preparation, and service to insure customer satisfaction.

OBJECTIVES: Relate basic principles of menu planning to food service work.

Identify various resources available for use in menu planning for food service establishments.

Perform menu planning tasks using standardized recipes and considering all important factors which may influence customer preferences and needs.

Utilize correct basic principles when planning and creating menus for food service establishments.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
** Plan quality menus for food service establishments.		Food service employee positions with menu planning responsibilities
(NOTE: The tasks in this section are only applicable to a few entry-level employee positions such as food service aide in a day-care center. They should be introduced to second year students since they require higher level abilities. Although all students will not utilize them, these tasks may aid in students' basic understanding of food service operations.)	Identify nutrients needed for the body to function properly. Determine sources of various nutrients. Utilize the Basic Four food groups correctly in planning menus. Utilize knowledge of basic principles of menu planning when diners ask for suggestions as they make food selections.	Importance of understanding basic menu planning principles

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Utilize knowledge of basic principles of menu planning when assisting in planning menus.	
	Make use of appropriate resources available when assisting in menu planning.	Resources for use in menu planning
	Follow standardized recipes in menu planning to achieve consistent products and price control.	Use of standardized recipes in menu planning
	Consider quality and quantity of equipment and supplies available for preparing, holding, and serving various foods when planning menus.	Influence of quality and quantity of equipment and supplies on menu planning
	Consider the number and capabilities of food service workers when planning foods to be prepared.	Influence of the quantity and quality of food service workers on menu planning
	Allow for workability in terms of space when choosing foods for menus.	Influence of availability of preparation, holding, and service space on menu planning
	Consider various clientele preferences and needs in menu planning.	Influence of clientele preferences and needs on menu planning
	Relate the location, type, size, and serving hours of food service establishment to menu plans.	Influence of location, type, size, and serving hours of food service establishment on menu plans

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Allow for product availability, budget allowances, and possible profitability when planning meals.	Influence of product availability, budget allowances, and possible profitability on menu plans
	Follow basic cost control principles when planning meals.	Influence of cost control on menu plans
		Basic food cost control principles
	Fill out any necessary records or worksheets which help to control food costs.	Records or worksheets used to aid in food cost control
	Allow for frequency of food delivery and availability of storage space when planning menus.	Influence of food delivery frequency and storage space availability on menu plans
	Consider the approximate number of portions to be served when planning menus.	Influence of number of portions to be served on menu plans
	Relate the role of food portioning to cost control.	Influence of food portioning on cost control
	Include ideas for festive occasions, special events, and holidays in menu plans.	Influence of festive occasions, special events, and holidays on menu plans
	Plan menus which are nutritionally adequate for all age groups.	Influence of nutrition on menu plans
	Plan menus with attention to eye appeal; appropriate flavor, color, texture, shape, and variety; and appropriate food combinations.	Influence of eye appeal, flavor, color, texture, shape, variety, and food combinations on menu plans

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
** Alter set menu plans when needed.	Allow for special situations in which changes from set menu plans need to be made.	Influence of special situations on changing menu plans
	Follow guidelines for making decisions related to changing the planned menu(s).	Guidelines for changing planned menus in special situations
** Adapt menus for modified diets.	Follow correct procedures when planning menus for people who require diet modifications.	Procedures for planning menus with diet modifications
		Situations which require modified diets
** Arrange, design, and interpret menu sheets or folders.	Utilize knowledge of basic menu arrangement and designing principles.	Basic principles and rules for creating menus
	Become familiar with foreign terms used in menus.	Foreign menu terms
	Utilize foreign menu terms correctly when planning and interpreting menus.	
	Identify various types of menus used in food service.	Types of menus
	Interpret information from various types of menus correctly.	
	Follow correct procedures in using various types of menus.	

QUANTITY FOOD METHODS

SUBJECT: Spicing and Flavoring in Quantity Food Preparation

COMPETENCY: Ability to achieve quality standards when preparing various dishes and products for food service using spices, herbs, and flavorings.

OBJECTIVES: Determine characteristics of specific spices, herbs, and flavorings.

Utilize appropriate equipment and procedures for spicing and flavoring various products prepared for service.

Distinguish quality standards for products prepared with spices, herbs, and flavorings.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
* Season and flavor various foods.	Utilize correct spices, herbs, and flavorings when preparing food products.	Variety of spices, herbs, and flavorings
	Utilize spices, herbs, and flavorings for a variety of purposes in preparation of different dishes and products.	Variety of uses of spices, herbs, and flavorings
	Store spices, herbs, and extracts under proper conditions to reduce deterioration.	Procedures for storage of spices, herbs, and flavorings
	Keep only limited supplies of spices on hand to insure freshness and excellent flavor.	
	Utilize spices, herbs, and extracts in correct amounts when preparing foods for service.	Cooking techniques for using spices, herbs, and flavorings in preparing foods

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Weigh and measure spices, herbs, and flavorings correctly.	
	Add spices, herbs, and flavorings to foods in the correct order when combining ingredients for preparation of various products.	
	Make accurate substitutions of dried herbs for fresh herbs.	
	Make accurate substitutions of flavorings when necessary (such as substituting cocoa for chocolate).	
	Crush herbs correctly (when appropriate) before adding them to foods.	
	Check seasonings by tasting foods correctly during preparation.	Reasons for tasting foods

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QUANTITY FOOD PRODUCTION

SUBJECT: Appetizers and Garnishes

COMPETENCY: Ability to achieve quality standards in preparing various appetizers and garnishes and in garnishing foods for service.

OBJECTIVES: Utilize proper materials and food products for preparing various appetizers and garnishes for service.

Organize equipment and procedures for preparing appetizers and garnishes.

Distinguish quality standards for various appetizers and garnishes.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
* Prepare appetizers.	Prepare various types of appetizers as directed.	Types of appetizers -hors d'oeuvre -relish -canapé -cocktail -petite salad -soup and consommé -dip
	Adhere to quality standards in preparing various types of appetizers.	Quality standards for appetizers
	Prepare appropriate soups and consommés for service as appetizers.	Procedures for preparing soups and consommés as appetizers (NOTE: For further details, see Soups, Sauces, and Gravies in QUANTITY FOOD PRODUCTION Unit)

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SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Prepare various types of petite salads for service as appetizers.	Procedures for preparing petite salads as appetizers (NOTE: For further details, see Salads and Salad Dressings in QUANTITY FOOD PRODUCTION Unit)
	Garnish petite salads attractively.	
	Chill petite salads appropriately before service.	
	Follow standardized recipes for preparing various types of dip for service as appetizers.	Procedures for preparing dip for service as appetizers
	Prepare dip to appropriate consistency.	
	Refrigerate dip as necessary before service.	
	Allow dip to stand at room temperature for appropriate length of time before service.	
	Serve appropriate chips and crackers with various types of dip.	
	Plate dips, chips, and crackers correctly and attractively for service.	Procedures for plating dips, chips, and crackers for service
	Perform preliminary preparation tasks for various vegetable relish ingredients.	Procedures for preparing relishes (NOTE: For further details, see Fruits and Vegetables in QUANTITY FOOD PRODUCTION Unit)

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Utilize appropriate equipment and utensils to cut or slice vegetable relishes in an attractive manner.	
	Keep vegetable relishes properly refrigerated until ready to serve.	Procedures for storing relishes
	Keep items covered with ice water before service as appropriate.	
	Serve relishes covered with crushed ice as appropriate.	
	Plate relishes appropriately for service.	Procedures for plating relishes
	Prepare various types of non-alcoholic cocktails as directed.	Types of non-alcoholic cocktails -fruit and vegetable juices or punch -fruit cocktails -seafood cocktails
	Juice fruits and vegetables as directed when preparing juice cocktails.	Procedures for preparing non-alcoholic cocktails
	Clean, cut, and slice fruits and vegetables attractively.	
	Prepare seafoods appropriately for use in making seafood cocktails.	
	Make appropriate sauces for use in cocktail preparation.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Combine and arrange various ingredients appropriately when preparing various cocktails.	
	Place cocktails in appropriate glasses for service.	
	Garnish cocktails to enhance flavor and appearance.	
	Chill cocktails as appropriate.	
	Prepare various types of hors d'oeuvres for service as appetizers.	Types of hors d'oeuvres
	Utilize correct ingredients and equipment for preparation of various types of hors d'oeuvres.	Procedures for preparing hors d'oeuvres
	Follow standardized recipes as appropriate for preparation of hors d'oeuvres.	
	Fill, stuff, or decorate hors d'oeuvres as appropriate for the product being prepared.	
	Chill or heat hors d'oeuvres as appropriate for the product.	
	Plate hors d'oeuvres appropriately for service.	Procedures for plating hors d'oeuvres
	Prepare various types of canapés for service as appetizers.	Types of canapés

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Utilize appropriate types of bread, toast, wafers, or pastry for preparation of canapés.	Procedures for preparing canapés
	Slice loaves of bread for canapés using appropriate equipment and procedures.	
	Prepare spreads and fillings correctly for use in preparation of canapés.	
	Spread butter, filling, and/or paste on bread using correct procedures.	
	Cut pieces of bread into appropriate sizes and shapes for canapés.	
	Fill pastry canapés correctly.	
	Add food ingredients appropriately to canapés.	
	Toast, broil, sauté, or chill canapés as appropriate for the product being prepared.	
	Decorate canapés appropriately for service.	Procedures for decorating canapés
	Arrange canapés attractively on trays or platters for service.	Procedures for plating canapés

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
* Prepare garnishes.	Prepare a variety of garnishes for service with foods.	Types of garnishes
	Adhere to quality standards in preparing various garnishes.	Quality standards for garnishes
	Perform preliminary preparation tasks for vegetables and fruits.	Pre-preparation of fruits and vegetables (NOTE: For further details, see Fruits and Vegetables in QUANTITY FOOD PRODUCTION Unit)
	Cut, slice, and perform other preparation tasks for garnishes following correct procedures.	Procedures for preparing garnishes
	Cover vegetable garnishes with water as appropriate for refrigerator storage.	
	Chill or heat garnishes as appropriate before service.	
	Store garnishes properly before use.	
	Portion garnishes as directed for service.	
* Garnish foods for service.	Garnish foods as directed and as appropriate in order to enhance flavor and appearance of products.	Procedures for garnishing foods

QUANTITY FOOD PRODUCTION

SUBJECT: Beverages

COMPETENCY: Ability to attain quality standards in preparing various non-alcoholic beverages for service in food service establishments.

OBJECTIVES: Utilize proper materials, food products, equipment, and procedures for preparing various beverages.

Distinguish quality standards for various beverages.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
Prepare brewed coffee.	Adhere to quality standards in preparing coffee.	Quality standards for coffee
	Utilize the correct equipment available for brewing coffee.	Procedures for brewing coffee
	Maintain clean coffee equipment in order to produce coffee with good flavor.	
	Use coffee and water in correct proportions when brewing coffee.	
	Follow correct procedures for brewing coffee.	
Prepare instant coffee.	Follow correct procedures for preparing instant coffee.	Procedures for preparing instant coffee
Prepare brewed tea.	Adhere to quality standards in preparing tea.	Quality standards for tea

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Utilize the correct equipment for brewing tea.	Procedures for brewing tea
	Use tea and water in correct proportions when brewing tea.	
	Follow correct procedures for brewing tea.	
	Follow correct procedures for combining concentrated tea and water.	
Prepare instant tea.	Follow correct procedures for preparing instant tea.	Procedures for preparing instant tea
	Add garnishes appropriately to tea before it is served.	Procedures for garnishing tea
Prepare iced tea and coffee.	Prepare tea or coffee at correct strength to be used for iced tea or coffee.	Procedures for preparing iced tea or coffee
	Pour tea or coffee over ice in glasses.	
Prepare hot cocoa and/or chocolate.	Adhere to quality standards in preparing hot cocoa and chocolate.	Quality standards for hot cocoa and chocolate
	Become familiar with specific methods used in food service establishment for making hot cocoa or chocolate.	Procedures for preparing hot cocoa or chocolate

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Utilize correct materials, equipment, and procedures for making hot cocoa or chocolate.	
	Add garnishes appropriately to hot cocoa and chocolate before it is served.	Procedures for garnishing hot cocoa and chocolate
Prepare frozen, dehydrated, and concentrated beverage products.	Follow instructions on labels of frozen, dehydrated, and concentrated products for making various beverages.	Procedures for preparing frozen, dehydrated, and concentrated beverage products
	Use proper equipment for preparing beverages from frozen, dehydrated, and concentrated products.	
	Taste all prepared beverages for quality standards.	
	Serve beverages as soon after preparation as possible if the quality is affected by holding.	Procedures for holding beverages
	Hold beverages in proper containers and store in appropriate places when holding is necessary before service.	

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QUANTITY FOOD PRODUCTION

SUBJECT:	Sandwiches
COMPETENCY:	Ability to prepare various types of hot and cold sandwiches for commercial food service, achieving quality products.
OBJECTIVES:	Utilize proper materials, food products, equipment, and procedures for preparing various types of hot and cold sandwiches. Distinguish quality standards for various types of sandwiches.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
Prepare sandwich ingredients and fillings.	Identify various types of cold and hot sandwiches sold commercially.	Types of cold and hot sandwiches sold commercially
	Adhere to quality standards in preparation of various types of sandwiches.	Quality standards for sandwiches
	Follow directions in standard recipes carefully, interpreting terms correctly.	Sandwich preparation terms
	Utilize various code symbols or abbreviations for sandwiches correctly.	Code symbols for sandwiches
	Prepare various ingredients for cold and hot sandwiches properly.	Preparation of sandwich ingredients
	Prepare meats for meat sandwiches following correct procedures.	Preparation of meats for sandwiches

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SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
Prepare sandwiches.	Prepare sauces and gravies for hot sandwiches following correct procedures.	Preparation of sauces and gravies for sandwiches
	Slice meats and other sandwich ingredients to proper thickness using correct procedures and equipment.	Procedures for slicing foods for sandwiches
	Prepare sandwich fillings following standardized recipes and using correct procedures.	Preparation of fillings for sandwiches
	Prepare salads properly for use in production of cold sandwiches.	Preparation of salads for sandwiches
	Assemble various types of hot and cold sandwiches individually or by the assembly-line method using proper equipment and procedures.	Steps in assembling sandwiches -individually (short order method) -assembly-line method
	Grill or heat sandwiches properly when instructed to do so.	Procedures for grilling or heating sandwiches
	Slice sandwiches properly (when directed).	Procedures for slicing sandwiches
	Wrap sandwiches (when directed) using correct materials and procedures.	Procedures for wrapping sandwiches
	Plate sandwiches (when directed) using appropriate plates and following correct procedures.	Procedures for plating sandwiches

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Garnish sandwiches properly.	Procedures for garnishing sandwiches
	Store cold prepared sandwiches properly to prevent spoilage while holding for service.	Procedures for storing cold sandwiches
	Fill and empty sandwich vending machine(s) at proper times (when directed).	Use of vending machines for sandwiches
	Hold hot sandwiches and hot sandwich ingredients, before service, under proper conditions to prevent bacteria growth.	Procedures for holding hot sandwiches and ingredients

QUANTITY FOOD PRODUCTION

SUBJECT: Fruits and Vegetables

COMPETENCY: Ability to attain quality standards and variety in preparing fruits and vegetables for meal service.

OBJECTIVES: Utilize proper materials, food ingredients, equipment, and procedures in preparation of various fruits and vegetables.

Distinguish quality standards for various fruits, vegetables, and fruit or vegetable products.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
Perform preliminary preparation of fruits and vegetables for use in various menu items.	Recognize various fruits and vegetables by name.	Names of fruits and vegetables
	Classify various fruits and vegetables.	Classification of fruits and vegetables
	Observe various forms in which fruits and vegetables are purchased for food preparation.	Forms in which fruits and vegetables are purchased -Canned -Dried; Dehydrated; Freeze-dried -Fresh -Frozen
	Utilize different forms of fruits and vegetables appropriately in preparation of recipes.	
	Adhere to quality standards in pre-preparation of fruits and vegetables.	Quality standards for fruits and vegetables
	Utilize methods in preparation of fruits and vegetables that conserve the nutritional value.	Preliminary preparation procedures that conserve nutritional value and optimum quality of fruits and vegetables

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Prepare most fruits as close to the cooking or serving time as possible.	
	Prepare fresh vegetables as close to the cooking time as possible.	
	Wash fruits and vegetables thoroughly to remove dust, spray, bacteria, and insects.	Procedures for cleaning fruits and vegetables
	Soak vegetables, when appropriate, in cold salt water or mild vinegar solution to remove insects.	
	Remove all inedible parts from fruits and vegetables.	
	Save good trimmings, peelings, and leftover edible parts of fresh vegetables for other uses.	
	Follow correct procedures for blanching fruits and vegetables to remove skins.	
	Leave fruits and vegetables whole, or cut uniformly into size and shape required for use.	Procedures for cutting fruits and vegetables
	Use machines and other appropriate equipment for cubing, slicing, dicing, shredding, chopping, and peeling fruits or vegetables.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Crisp or freshen fresh vegetables in cold water, when appropriate, to reduce wilting and produce a more firm product.	Procedures for crisping or freshening fresh vegetables
	Prevent darkening of fruit when peeled by dipping pieces of fruit in appropriate solution.	Procedures for preserving the color of fruits
	Prevent browning of fruits caused from contact with metal knives by using clean stainless steel knives for cutting.	
	Store vegetables prepared ahead of time in proper containers for refrigeration.	Procedures for storing vegetables for later use
	Thaw frozen fruits and vegetables in refrigerator following correct procedures.	Procedures for thawing frozen fruits and vegetables
	Soak dried, dehydrated, or freeze-dried fruits and vegetables in water following manufacturer's recommendations.	Procedures for soaking dried, dehydrated, or freeze-dried fruits and vegetables
Prepare fruits for meal service.	Use the appropriate methods and ingredients for the fruit being prepared.	Procedures for cooking fruits
	Add the correct amounts of water (or fruit juice) and sugar at the proper times when cooking various fruits.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Use pre-prepared fresh, frozen, canned, or dried fruits in preparation of a variety of products.	Ways of achieving variety in serving fruits
	Hold various fruits under the proper conditions before they are served.	Procedures for holding various fruits
	Plate fruits using appropriate dishes and procedures.	Procedures for plating fruits
	Garnish fruits properly for service.	Procedures for garnishing fruits
* Prepare vegetables and vegetable dishes.	Utilize proper methods of vegetable cookery to conserve nutrients.	Procedures for cooking vegetables
	Cook dried vegetables in the same water in which they were soaked.	
	Use correct amounts of liquid, seasoning, and other ingredients for cooking vegetables.	
	Heat or cook vegetables for appropriate lengths of time according to the form in which they were purchased.	
	Use vegetables in preparation of a variety of products.	Ways of achieving variety in serving vegetables
	Hold various vegetables and vegetable dishes under the proper conditions before they are served.	Procedures for holding vegetables and vegetable dishes

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Plate vegetables following correct procedures.	Procedures for plating vegetables
	Garnish vegetables appropriately following correct procedures.	Procedures for garnishing vegetables

QUANTITY FOOD PRODUCTION

SUBJECT: Salads and Salad Dressings

COMPETENCY: Ability to produce quality salads and salad dressings for service in food service establishments.

OBJECTIVES: Utilize proper materials, food products, equipment, and procedures when preparing various salads and salad dressings for food service.

Distinguish quality standards for various types of salads and salad dressings.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
Prepare salad ingredients for meal service.	Identify various types and categories of salads.	Types and categories of salads
	Adhere to quality standards in preparation of salads.	Quality standards for salads
	Utilize the correct preparation techniques for various types of salad preparation.	Techniques related to salad preparation
	Utilize the correct preparation terms when preparing various types of salads.	Procedures for preparing salad ingredients (NOTE: For further details, see Fruits and Vegetables in QUANTITY FOOD PRODUCTION Unit)
	Clean, wash, and prepare salad greens, fruits, and vegetables for salad preparation following correct procedures.	
	Prepare meats and seafoods to be used in meat and seafood salads following proper procedures.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Store prepared salad greens, fruits, vegetables, meats, and seafoods properly for later use.	Storage of prepared salad ingredients
* Prepare salads.	Prepare various types of fruit salads following standardized recipes and using correct equipment and procedures.	Procedures for preparing fruit salads
	Prepare various types of vegetable and leafy green salads following standardized recipes and using correct equipment and procedures.	Procedures for preparing vegetable and leafy green salads
	Prepare various types of meat and seafood salads following standardized recipes and using correct equipment and procedures.	Procedures for preparing meat and seafood salads
	Prepare various types of gelatin salads following standardized recipes and using correct equipment and procedures.	Procedures for preparing gelatin salads
	Hold various types of salads under the proper conditions before they are served.	Procedures for holding various types of salads
	Portion salads using correct procedures and equipment.	Procedures for portioning salads
	Plate or package salads following correct procedures for the particular food service establishment.	Procedures for plating and packaging salads

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Garnish various kinds of salads following proper procedures.	Procedures for garnishing salads
* Prepare various types of salad dressings.	Follow standardized recipes and use correct equipment in preparing various types of salad dressings.	Procedures for preparing salad dressings
	Utilize convenience items correctly to make salad dressings.	
	Combine ingredients correctly for preparation of various salad dressings.	
	Store salad dressings properly before serving.	Procedures for storing salad dressings
	Utilize purchased salad dressings and salad dressings made in the laboratory in preparation of salads.	Procedures for using salad dressings

QUANTITY FOOD PRODUCTION

SUBJECT: Soups, Sauces, and Gravies

COMPETENCY: Ability to achieve quality standards in preparing various types of soups, sauces, and gravies for service in food service establishments.

OBJECTIVES: Utilize proper materials, food products, equipment, and procedures for preparing various soups, sauces, and gravies.

Distinguish quality standards for various soups, sauces, and gravies.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
* Prepare stocks and thin soups.	Utilize various terms correctly which relate to preparation of stocks and thin soups.	Terms related to preparation of stocks and thin soups
	Adhere to quality standards in preparation of stocks and thin soups.	Quality standards for stocks and thin soups
	Utilize convenience products to prepare stocks following correct procedures.	Procedures for preparing stocks
	Follow standardized recipes carefully when making stocks from scratch.	
	Use appropriate ingredients of good quality for making various stocks.	
	Cut or saw meat, fish, or poultry bones using proper equipment and procedures.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Cut meat into properly sized pieces for use in stocks.	
	Blanch meat and/or bones for use in preparation of stocks following proper procedures.	
	Cut raw vegetable garnishes for stocks according to their uses.	
	Bring stocks to a boil following correct procedures.	
	Remove fat and skum that appears on the surface of stocks using proper equipment and procedures.	
	Simmer stocks the correct lengths of time.	
	Strain stocks using proper equipment and procedures to remove all foreign particles.	
	Cool stocks as quickly as possible in a sink, allowing cold water to fill the sink and flow under and around the pot.	Procedures for cooling stocks
	Refrigerate stocks properly until ready for use.	Procedures for holding stocks
	Utilize stocks properly in making various thin soups for service.	Procedures for preparing thin soups

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Utilize convenience products for preparation of thin soups as directed.	
	Follow standardized recipes in preparing various hot and cold thin soups from scratch.	
	Utilize ingredients of good quality for preparation of various thin soups.	
	Sauté the vegetable garnish used in most soups following proper procedures.	
	Grind foods following proper procedures for use in various soups.	
	Follow proper procedures in cooking various thin soups.	
* Prepare medium and thick soups.	Adhere to quality standards in preparation of medium and thick soups.	Quality standards for medium and thick soups
	Utilize convenience products for preparation of medium and thick soups as directed.	Procedures for preparation of medium and thick soups
	Follow standardized recipes in preparation of medium and thick soups from scratch.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Use appropriate ingredients of good quality for preparation of medium and thick soups.	
	Follow correct procedures for cooking medium and thick soups.	
	Prepare soups to proper thicknesses.	
	Hold soups under proper conditions before service.	Procedures for holding soups
	Portion soups using proper equipment and procedures.	Procedures for portioning soups
	Use appropriate bowls for serving various soups.	
	Garnish various soups appropriately for service.	Procedures for garnishing soups
* Prepare warm sauces and gravies.	Adhere to quality standards in preparation of warm sauces and gravies.	Quality standards for warm sauces and gravies
	Serve a variety of warm sauces and gravies to accompany appropriate foods.	Types of warm sauces and gravies
	Utilize convenience products for preparation of warm sauces and gravies as directed.	Procedures for preparing warm sauces and gravies
	Follow standardized recipes for preparing various types of sauces and gravies from scratch.	

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SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Use stock of good quality in production of sauces and gravies.	
	Reduce or boil most stocks used in warm sauces to a concentrate.	
	Use correct ingredients and thickening agents for making the types of warm sauces and gravies desired.	
	Follow correct procedures for combining the thickening agent and the liquid when making warm sauces and gravies.	
	Cook down the natural juices of meats before adding thickening agent to gravies.	
** Prepare cold sauces.	Adhere to quality standards in preparation of cold sauces.	Quality standards for cold sauces
	Utilize convenience products for preparation of cold sauces as directed.	Procedures for preparing cold sauces
	Follow standardized recipes properly for making various cold sauces from scratch.	
	Prepare appropriate ingredients properly when making cold sauces.	
	Mix or blend ingredients appropriately for cold sauces.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
* Prepare butter sauces, dessert or sweet sauces, and other miscellaneous sauces.	Adhere to quality standards in preparation of butter sauces, dessert or sweet sauces, and other miscellaneous sauces.	Quality standards for butter sauces, dessert or sweet sauces, and other miscellaneous sauces
	Utilize convenience products correctly for preparation of butter sauces, dessert or sweet sauces, and other miscellaneous sauces.	Procedures for preparing butter sauces, dessert or sweet sauces, and other miscellaneous sauces
	Use appropriate ingredients for preparing butter sauces, dessert or sweet sauces, and other miscellaneous sauces from scratch.	
	Follow standardized recipes for preparing butter sauces, dessert or sweet sauces, and other miscellaneous sauces.	
	Hold sauces and gravies under appropriate conditions before they are served.	Procedures for holding sauces and gravies
	Prevent skum formation on the surface of sauces by covering while warm, brushing melted butter over surface, or laying oiled paper on the surface.	
	Portion sauces and gravies using proper equipment and procedures.	Procedures for portioning sauces and gravies

QUANTITY FOOD PRODUCTION

SUBJECT: Cereals and Pasta

COMPETENCY: Ability to prepare various cereals and macaroni products for commercial food service, adhering to quality standards.

OBJECTIVES: Utilize proper materials, food products, equipment, and procedures when preparing various cereals and macaroni products.

Distinguish quality standards for preparing various cereals and macaroni products.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
Prepare cereals.	Adhere to quality standards in preparation of various cereals.	Quality standards for cereals
	Prepare a variety of cereals for service as directed.	Varieties of cereals
	Utilize the correct proportions of water, salt, butter, and dry cereal when cooking cereals.	Procedures for preparing cooked cereals
	Follow standard procedures in the preparation of cooked cereals.	
	Cook cereals the appropriate length of time at proper temperature settings, using correct procedures.	
	Time preparation of cooked cereals so that cereals are cooked as close to the serving time as possible.	

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SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Hold cooked cereals under proper conditions when it is necessary to hold them before service.	Procedures for holding cooked cereals
	Follow correct procedures for re-heating cooked cereals as necessary before service.	Procedures for re-heating cooked cereals
	Follow manufacturers' instructions carefully for preparing various quick-cooked and instant cereals.	Procedures for preparing quick-cooked and instant cereals
	Add appropriate ingredients to cold cereals or portion ingredients and cold cereals in separate containers for service.	Procedures for preparing cold cereals for service
	Portion various types of cereals using correct equipment and procedures.	Procedures for portioning cereals
	Plate various types of cereals appropriately.	Procedures for plating cereals
	Use cereals in preparation of a variety of dishes and food products.	Uses for cereals in preparation of various foods
* Prepare various pasta products.	Adhere to quality standards in preparation of various pasta products.	Quality standards for pasta
	Select the appropriate pasta products for preparation of various dishes.	Varieties of pasta

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SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Use correct proportions of water, butter or oil, and salt for the amount of pasta being prepared.	Procedures for preparing pasta
	Cook pasta following correct procedures.	
	Pour off the water from pasta properly, after the product has cooked sufficiently.	
	Blanch pasta in water if instructed to do so by teacher.	
	Hold cooked pasta under proper conditions when necessary before service.	Procedures for holding cooked pasta
	Follow correct procedures for re-heating cooked pasta before service.	Procedures for re-heating cooked pasta
	Utilize pasta correctly in preparation of various dishes and food products.	Uses for pasta in preparation of various foods
	Hold pasta products under proper conditions before they are served.	Procedures for holding pasta products
	Portion foods made with pasta using correct equipment and procedures.	Procedures for portioning foods made with pasta
	Plate appropriately all foods made with pasta.	Procedures for plating foods made with pasta
	Garnish appropriately foods made with pasta.	Procedures for garnishing foods made with pasta.

QUANTITY FOOD PRODUCTION

SUBJECT: Eggs and Egg Dishes

COMPETENCY: Ability to produce quality standards in preparation of eggs and various egg dishes for service.

OBJECTIVES: Utilize proper materials, food products, equipment, and procedures for preparing eggs and various egg dishes for service.

Distinguish quality standards for eggs and egg dishes prepared by various methods of egg cookery.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
* Prepare eggs and egg dishes.	Utilize various forms of eggs correctly for preparing eggs and egg dishes.	Forms of eggs -fresh -frozen -dehydrated (dried)
	Follow correct procedures for reconstituting dehydrated eggs.	Procedures for reconstituting dehydrated eggs
	Utilize correct techniques for cracking fresh eggs for use in cooking.	Procedures for cracking fresh eggs
	Utilize correct techniques for separating whites from yolks of eggs.	Procedures for separating whites from yolks of eggs
	Thaw frozen eggs under refrigeration following correct procedures.	Procedures for thawing frozen eggs
	Use correct amounts of frozen or dried eggs to equal the amount of fresh eggs needed for product being prepared.	Egg equivalents -frozen and fresh -dried and fresh

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Utilize appropriate equipment and utensils for preparing eggs using various methods.	Equipment and utensils used in egg cookery
	Utilize correct techniques when caring for special equipment used for cooking eggs.	Procedures for caring for egg cookery equipment
	Adhere to quality standards in preparation of eggs and egg dishes by various cookery methods.	Quality standards for eggs and egg dishes
	Use different forms of eggs in preparation of various products.	Uses of eggs in meal preparation
	Follow correct principles of egg cookery in preparation of eggs and egg dishes.	Principles of egg cookery
	Follow correct procedures for cooking eggs in water by various methods.	Methods of cooking eggs in water
	Perform appropriate pre-preparation tasks before simmering eggs.	-Simmering
	Simmer eggs at proper temperatures for correct length of time, to cook eggs to desired doneness.	
	Place eggs in cold water after cooking and peel them following correct procedures.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Utilize appropriate pre-preparation techniques before poaching eggs.	-Poaching
	Poach eggs for the correct length of time at proper temperatures.	
	Remove poached eggs from water properly to give good drainage.	
	Utilize correct techniques for preparing coddled eggs.	-Coddling
	Allow eggs to stand in water for correct length of time to obtain desired doneness.	
	Peel coddled eggs following correct procedures.	
	Follow correct procedures for cooking eggs with dry heat by various methods.	Methods of cooking eggs with dry heat
	Utilize correct techniques for preparing various types of fried eggs.	-Frying
	Perform appropriate pre-preparation tasks before scrambling eggs.	-Scrambling
	Utilize correct preparation techniques for scrambling various quantities of eggs.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Scramble eggs to appropriate consistency using correct cooking temperature.	
	Perform appropriate pre-preparation techniques for preparing omelets.	-Omelets
	Utilize correct techniques for preparing and cooking omelets to correct consistency.	
	Fill omelets with correct ingredients (when appropriate) following proper procedures.	
	Fold or roll omelet following correct procedures.	
	Utilize appropriate ingredients for preparation of various types of soufflés.	-Soufflés (NOTE: For further details, see Puddings, Custards, Soufflés, Gelatin Desserts, and Frozen Desserts in QUANTITY FOOD PRODUCTION Unit)
	Combine ingredients correctly for preparation of soufflés.	
	Bake soufflés at proper temperatures for correct lengths of time.	
	Add food ingredients to eggs appropriately before, during, or after cooking to produce different egg dishes.	Procedures for combining eggs and other food ingredients

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SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Time preparation of eggs and egg dishes so that they are cooked as close to the serving time as possible.	Procedures for timing the preparation of eggs and egg dishes
	Portion eggs and egg dishes appropriately.	Procedures for portioning eggs and egg dishes
	Plate eggs and egg dishes appropriately for service.	Procedures for plating eggs and egg dishes
	Garnish eggs and egg dishes correctly before service.	Procedures for garnishing eggs and egg dishes
		(NOTE: For information on preparation of meringues, see Pies, Pastries, and Meringues in QUANTITY FOOD PRODUCTION Unit)

QUANTITY FOOD PRODUCTION

SUBJECT: Cheeses and Cheese Products

COMPETENCY: Ability to attain quality products when preparing cheeses and various cheese products for service in food service establishments.

OBJECTIVES: Utilize proper materials, food products, equipment, and procedures for preparing cheeses and cheese products for service.

Distinguish quality standards for various cheese products.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
* Prepare cheeses and cheese products.	Use a variety of cheeses in preparation of cheese dishes and products for service.	Varieties of cheeses
	Wrap various types of cheeses correctly for storage.	Procedures for storing cheeses
	Store various types of cheeses following correct procedures.	
	Adhere to quality standards in preparation of cooked cheese dishes and products.	Quality standards for cooked cheese dishes
	Use cheeses correctly in preparation of a variety of products for service.	Uses for cheese in food preparation
	Grate cheeses (when appropriate) following correct procedures.	Methods of cheese cookery

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SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Soak very hard cheeses in a small amount of milk after grating to aid in blending.	
	Cut cheeses into appropriate sizes and shapes for service and for addition to other products.	
	Follow correct procedures for combining and blending cheeses with other food ingredients.	
	Cook cheese dishes and products at proper temperatures for correct lengths of time.	
	Add cheese toppings to cooked products at appropriate time to prevent them from hardening.	
	Hold cheese products under appropriate conditions before serving.	Procedures for holding cheese products
	Serve uncooked cheeses with appropriate foods.	Methods for serving uncooked cheeses
	Portion cheeses and cheese products appropriately for service.	Procedures for portioning cheeses and cheese products
	Plate cheeses and cheese products appropriately for service.	Procedures for plating cheeses and cheese products
	Garnish foods with cheeses (when appropriate) following correct procedures.	Procedures for garnishing with cheeses

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SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Garnish cheeses and cheese products (when appropriate) following correct procedures.	Procedures for garnishing cheeses and cheese products

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QUANTITY FOOD PRODUCTION

SUBJECT: Meats, Seafoods, and Poultry

COMPETENCY: Ability to achieve quality standards in preparing various types of meats, seafoods, and poultry for service in food service establishments.

OBJECTIVES: Utilize proper materials, food products, equipment, and procedures for preparing various meats, seafoods, and poultry for service.

Distinguish quality standards for various preparations of meats, seafoods, and poultry.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
* Prepare meats, seafoods, and poultry.	Utilize meats, seafoods, and poultry appropriate for preparation of various dishes and food products as directed.	Major varieties of meats, seafoods, and poultry
	Store various meats, seafoods, and poultry at proper temperatures for expected storage time.	Procedures for care and storage of meats, seafoods, and poultry
	Prepare only meats, seafoods, and poultry which have been stored for less than the safe maximum storage time.	
	Thaw frozen meats, seafoods, and poultry (when appropriate) using the best methods.	
	Cover or wrap meats, seafoods, and poultry properly for storage.	

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SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Utilize appropriate cookery methods as directed by the teacher for the kind, cut, and quality of food items.	Methods of cookery (dry heat and moist heat methods) for meats, seafoods, and poultry
	Adhere to quality standards in preparation of meats, seafoods, and poultry.	Quality standards for meats, seafoods, and poultry
	Cook various meats to order or to appropriate stage of doneness, using a thermometer correctly and/or recognizing the characteristics of the stages.	Stages of doneness in meats
	Time the preparation of various meats, seafoods, and poultry appropriately in relation to the serving time.	Procedures for timing preparation of various meats, seafoods, and poultry
	Utilize appropriate pans, baking sheets, and other equipment as needed for cooking various types and cuts of meats, seafoods, and poultry.	Equipment for cooking meats, seafoods, and poultry
	Cook meats, seafoods, and poultry from the frozen or partially frozen state to reduce nutritional and flavor loss.	Procedures for cooking frozen meats, seafoods, and poultry
	Pre-prepare meats, seafood, and poultry for broiling following correct techniques.	Procedures for broiling (using a gas, electric, or charcoal broiler)

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SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Broil at proper temperatures and for the correct lengths of time according to the cut and type of meat and size of pieces.	
	Use correct preparation and cooking techniques while broiling.	
	Use appropriate methods to prevent drippings from flaming when broiling.	
	Select pans suited for pan-broiling so that drippings do not burn.	Procedures for pan-broiling
	Perform appropriate pre-preparation tasks before pan-broiling.	
	Follow correct preparation and cooking procedures while pan-broiling.	
	Pan-broil for correct lengths of time at proper temperatures.	
	Perform appropriate pre-preparation tasks before griddle-broiling.	Procedures for griddle-broiling
223	Follow correct cooking and preparation procedures while griddle-broiling.	

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SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Cook items on griddle of proper temperature for correct length of time to desired doneness.	
	Perform appropriate pre-preparation tasks before grilling.	Procedures for grilling (using a gas or charcoal grill)
	Follow correct cooking and preparation procedures while grilling.	
	Cook items on grill for correct length of time to desired stage of doneness.	
	Perform appropriate pre-preparation tasks before baking meats, seafoods, and poultry.	Procedures for baking
	Follow correct techniques for baking various meats, seafoods, and poultry.	
	Bake various meats, seafoods, and poultry at appropriate temperatures for correct lengths of time.	
	Select the correct oven times and temperatures for roasting various cuts, sizes, and types of meats, seafoods, and poultry.	Times and temperatures for roasting
	Perform appropriate pre-preparation tasks before roasting meats, seafoods, and poultry.	Procedures for roasting

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SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Utilize correct cooking and preparation techniques while roasting various types of meats, seafoods, and poultry.	
	Allow meats and poultry to stand (when appropriate) for correct length of time before carving.	Procedures for carving roasted meats and poultry
	Carve roasted meats and poultry (when appropriate) using correct procedures and equipment.	
	Hold roasted meat and poultry items properly in a holding oven at proper temperature for later service.	Procedures for holding roasted meats and poultry
	Perform appropriate pre-preparation tasks before cooking meats, seafoods, and poultry in the microwave oven.	Procedures for microwave or electronic cooking
	Follow correct cooking and preparation procedures for cooking meats, seafoods, and poultry in the microwave oven.	
	Cook meats, seafoods, and poultry for the correct length of time at proper settings in the microwave oven.	
	Prepare barbecue sauces following correct procedures or use appropriate prepared sauces.	Procedures for barbecuing

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SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Perform appropriate pre-preparation tasks before barbecuing.	
	Baste meats and poultry correctly with sauce for barbecuing.	
	Cook meats and poultry appropriately for barbecuing.	
	Presoak food items (when appropriate) in cold, salted water in order to remove undesirable parts, to firm, or to season.	Procedures for blanching
	Blanch food items the correct length of time when a preparation treatment is necessary.	
	Follow correct procedures for cooking meats, seafoods, or poultry in fats or oils.	Procedures for cooking in fats or oils
	Utilize appropriate coatings for various types of meats, seafoods, and poultry as directed.	-Types of coatings used in preparation of foods for deep fat frying --breading --batter dipping --wrapping in dough
	Carry out procedures correctly for preparing ingredients for coatings.	-Procedures for preparing items for deep-fat frying
	Use the correct amount of coating for the size of the product.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Follow correct procedures for breading items, dipping items in batter, and wrapping items in dough.	
	Modify coatings for foods to suit the products being prepared.	
	Utilize the appropriate type and amount of fat for deep-fat frying.	-Deep-fat frying
	Follow correct deep-fat frying techniques to insure quality products.	
	Follow all appropriate safety rules when deep-fat frying foods.	
	Deep-fat fry foods the correct lengths of time at appropriate temperatures.	
	Keep fat in deep-fat fryer free of materials and at proper level.	
	Keep deep-fat fried foods under proper conditions while holding for service.	
	Perform pre-preparation techniques before pan-frying or sautéing food items.	-Pan-frying or sautéing
	Utilize the correct preparation and cooking techniques for pan-frying or sautéing foods.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Pan-fry or sauté items at correct temperatures for appropriate lengths of time.	
	Perform appropriate pre-preparation techniques before braising meats, seafoods, or poultry.	Procedures for braising
	Utilize correct preparation and cooking techniques for braising meats, seafoods, and poultry.	
	Braise meats, seafoods, and poultry for correct lengths of time at proper temperatures.	
	Perform appropriate pre-preparation techniques before steaming meats, seafoods, or poultry.	Procedures for steaming
	Utilize appropriate preparation and cooking techniques for steaming meats, seafoods, or poultry.	
	Steam meats, seafoods, and poultry for correct lengths of time at proper temperatures or with correct amounts of pressure.	
	Follow correct procedures for cooking meats, seafoods, or poultry in liquid by various methods.	Procedures for cooking in liquid

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SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Perform appropriate pre-preparation tasks before simmering meats, seafoods, or poultry.	-Simmering
	Use correct techniques for simmering meats, seafoods, and poultry.	
	Simmer meats, seafoods, and poultry for correct lengths of time at proper temperatures.	
	Perform correct pre-preparation tasks before stewing meats, seafoods, or poultry.	-Stewing
	Use correct techniques for stewing meats, seafoods, and poultry.	
	Stew meats, seafoods, and poultry for correct lengths of time at proper temperatures.	
	Perform appropriate pre-preparation techniques before poaching meats, seafoods, and poultry.	-Poaching
	Utilize correct preparation and cooking techniques for poaching meats, seafoods, and poultry.	
	Poach meats, seafoods, and poultry for correct lengths of time at proper temperatures.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Utilize various types of meats, seafoods, and poultry in preparation of various dishes and products.	Uses for meats, seafoods, and poultry in food preparation
	Hold various types of cooked meats, seafoods, and poultry under appropriate conditions before serving.	Procedures for holding cooked meats, seafoods, and poultry products
	Plate meats, seafoods, and poultry correctly.	Procedures for plating meats, seafoods, and poultry
	Serve appropriate additional food ingredients (such as sauces and gravies) with meats, seafoods, and poultry.	
	Garnish various meats, seafoods, and poultry appropriately for service.	Procedures for garnishing meats, seafoods, and poultry

QUANTITY FOOD PRODUCTION

SUBJECT: Breads

COMPETENCY: Ability to attain quality standards in preparation of various quick breads and yeast breads for service in food service establishments.

OBJECTIVES: Utilize proper materials, food products, equipment, and procedures for preparing various types of quick breads and yeast breads.

Distinguish quality standards for various types of quick breads and yeast breads.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
Prepare convenience breads.	Follow manufacturers' or teacher's instructions for heating and preparing all convenience breads.	Procedures for preparing convenience breads
Prepare quick breads.	Adhere to quality standards in preparation of quick breads.	Quality standards for quick breads
	Prepare various types of quick breads.	Varieties of quick breads
	Utilize convenience products to prepare quick breads following correct procedures.	Procedures for preparing quick breads
	Follow standardized recipes for preparation of quick breads from scratch.	
	Utilize ingredients in the proper proportions for preparation of quick breads.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Combine ingredients for quick breads in correct order.	
	Mix quick bread ingredients for correct lengths of time using proper procedures and equipment.	
	Knead the dough properly for rolled biscuits or other rolled quick bread products.	-Baked quick breads made from rolled dough
	Roll the dough out for rolled biscuits and other rolled quick breads using correct procedures and equipment.	
	Utilize correct procedures and equipment to cut biscuits and other rolled quick breads into desired sizes and shapes. (Scones may be cut after dough is spread on baking sheet.)	
	Place biscuits and other rolled quick breads on greased pan(s) or baking sheet(s) following correct procedures.	
	Use correct equipment and procedures to portion quick bread batter into pans or muffin tins.	-Baked quick breads made from batter
	Fill pans or tins with correct amounts of quick bread batter.	
	Bake quick breads in ovens for correct lengths of time.	-Procedures for baking quick breads

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Remove quick breads from pans to allow steam to escape.	
	Cool quick breads (when appropriate) properly before serving.	
	Pour correctly sized portions of pancake batter onto greased griddle using correct procedures and equipment.	-Pancakes
	Bake pancakes the correct length of time before turning.	
	Turn pancakes and bake remaining side the correct length of time.	
	Store quick breads (when appropriate) under proper conditions for length of expected storage time.	Procedures for storing quick breads
	Portion quick breads (when appropriate) using correct procedures and equipment.	Procedures for portioning quick breads
* Make yeast breads.	Utilize an appropriate method for preparation of yeast breads.	Methods commonly used in preparation of yeast breads
	Adhere to quality standards in preparation of yeast breads.	Quality standards for yeast breads
	Prepare various types of yeast breads utilizing standardized recipes.	Varieties of yeast breads

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Utilize ingredients in the proper proportions for preparation of yeast breads. Combine the ingredients for yeast breads according to the order listed in standardized recipes. Use equipment to mix dough following correct procedures. Place dough in a warm, moist place for correct length of time to allow the dough to rise. Punch dough properly when it has risen sufficiently. Scale dough (weigh into equal portions) properly. Allow dough to rest for correct length of time to relax gluten. Shape dough into desired shapes. Select the correct type of pan to be used for the desired product. Place yeast dough into greased pans, tins, or baking sheets properly.	Procedures for preparing yeast breads

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SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Allow dough to rise in pans as appropriate for the product before baking or frying.	
	Bake or fry the dough (such as for doughnuts) for correct length of time, following recipe instructions.	
	Cool yeast breads (when appropriate) on cooling racks.	
	Add ingredients, fillings, or garnishes to yeast breads (such as fillings for doughnuts) as appropriate.	
	Store yeast breads under proper conditions for expected storage time.	Procedures for storing yeast breads
	Portion yeast breads (when appropriate) using correct procedures and equipment.	Procedures for portioning yeast breads

QUANTITY FOOD PRODUCTION

SUBJECT: Fruit Desserts and Fried Desserts

COMPETENCY: Ability to produce quality standards in preparing various types of fruit desserts and fried desserts for service in food service establishments.

OBJECTIVES: Utilize proper materials, food products, equipment, and procedures for preparing various fruit desserts and fried desserts for service.

Distinguish quality standards for various fruit desserts and fried desserts.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
* Prepare fruit desserts.	Adhere to quality standards in preparing various fruit desserts.	Quality standards for fruit desserts
	Perform preliminary preparation of fresh, frozen, canned, or dried fruits for dessert service.	Procedures for preparing fruit for desserts (NOTE: For further details on preparation of fruits, see Fruits and Vegetables in QUANTITY FOOD PRODUCTION Unit)
	Follow standardized recipes for preparing fruit desserts.	Procedures for preparing fruit desserts
	Use appropriate ingredients for preparing fruit desserts.	
	Bake or fry (as appropriate) fruit desserts using correct equipment and procedures.	
	Hold fruit desserts under appropriate conditions before serving.	Procedures for holding fruit desserts

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Portion fruit desserts using proper equipment and procedures.	Procedures for portioning fruit desserts
	Plate fruit desserts as directed.	Procedures for plating fruit desserts
	Add appropriate final ingredients, such as sauces or whipped cream, to fruit desserts at point of service.	Procedures for garnishing fruit desserts
** Prepare fried desserts.	Adhere to quality standards in preparing fried desserts.	Quality standards for fried desserts
	Select various types of fritters for preparation.	Types of fritters
	Prepare batter or muffin mixtures for fritters according to standardized recipes.	Procedures for preparing fritters
	Dip fruit in batter or mix fruits into muffin mixtures to make fritters.	
	Portion fruit and batter correctly before frying fritters.	
	Deep-fry or pan-fry fritters using correct materials, equipment, and procedures.	(NOTE: For further details on frying, see Meats, Seafoods, and Poultry in QUANTITY FOOD PRODUCTION Unit)
	Follow standardized recipes for preparing batter for crêpes.	Procedures for preparing crêpes

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Utilize the available crêpe-making equipment following correct procedures.	
	Freeze crêpes for storage if prepared for later use.	
	Thaw and rewarm crêpes properly if they were frozen for storage.	
	Portion fillings for crêpes properly.	
	Fill crêpes with appropriate ingredients and fold or roll them properly for service.	
	Plate warm crêpes properly.	Procedures for plating crêpes
	Garnish dessert crêpes with appropriate ingredients such as powdered sugar.	Procedures for garnishing crêpes
	Prepare different kinds of doughnut doughs.	Types of doughnuts -cake -yeast -French
	Utilize mixes of prepared ingredients or basic ingredients properly to prepare doughnuts according to the method used by the food service establishment.	Procedures for preparing doughnuts
	Mix doughnut ingredients properly.	

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SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Handle doughnut dough properly.	
	Roll and cut doughnuts out properly or utilize automatic doughnut dropper to shape the doughnuts.	
	Fry doughnuts using correct procedures and materials.	(NOTE: For further details on frying, see QUANTITY PREPARATION OF MEATS, SEAFOODS, AND POULTRY)
	Fill various types of doughnuts appropriately following correct procedures.	
	Prepare glaze or icing for doughnuts (when appropriate).	
	Glaze or ice doughnuts following correct procedures.	
	Prepare any appropriate garnishing ingredients for doughnuts following correct procedures.	
	Roll or dip doughnuts in garnishing ingredients using correct procedures and equipment.	
	Hold fried desserts under appropriate conditions before serving them.	Procedures for holding fried desserts

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QUANTITY FOOD PRODUCTION

SUBJECT: Puddings, Custards, Soufflés, Gelatin Desserts, and Frozen Desserts

COMPETENCY: Ability to achieve quality standards in preparing various types of desserts for service in food service establishments.

OBJECTIVES: Utilize proper materials, food products, equipment, and procedures for preparing various desserts for service.

Distinguish quality standards for various desserts.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
* Prepare puddings and custards.	Prepare a variety of puddings and custards for meal service as directed.	Types of puddings and custards
	Adhere to quality standards in preparing various types of puddings.	Quality standards for puddings
	Utilize convenience products as directed for preparing puddings.	Procedures for preparing puddings using dry pudding mixes
	Follow standardized recipes for preparing puddings.	Procedures for preparing conventional puddings
	Use correct procedures and equipment to prepare various cream- or starch-thickened puddings.	
	Use correct procedures and equipment for preparing various steamed (boiled) puddings.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Hold puddings under appropriate conditions before they are served.	Procedures for storing puddings
	Portion various types of puddings using correct procedures and equipment.	Procedures for portioning puddings
	Add appropriate sauces or other ingredients to puddings before service.	Procedures for service of puddings with other food products
	Adhere to quality standards in preparing custards.	Quality standards for custards
	Prepare custards using dry custard mixes, following manufacturers' instructions.	Procedures for preparing custards using dry custard mixes
	Follow standardized recipes for preparing conventional baked custards.	Procedures for preparing conventional baked custards
	Use proper equipment and procedures for preparing conventional baked custards.	
	Remove baked custards from the oven at the proper time (before completely done to prevent overcooking).	
	Cool baked custards properly after removal from oven.	
	Use appropriate equipment and procedures for preparing soft, or stirred, custards.	Procedures for preparing soft, or stirred, custards

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Stir soft custards constantly during preparation to prevent curdling.	
	Store custards under proper conditions until service.	Procedures for storing custards
	Portion custards using proper equipment and procedures.	Procedures for portioning custards
	Plate custards using appropriate equipment and procedures.	Procedures for plating custards
	Garnish custards appropriately.	Procedures for garnishing custards
	Add soft custards appropriately to other food items such as fruit or cake slices for dessert service.	Procedures for service of soft custards with other dessert foods
** Prepare soufflé desserts.	Adhere to quality standards for preparing various soufflé desserts.	Quality standards for soufflé desserts
	Follow standard recipes when preparing soufflé desserts.	Procedures for preparing soufflé desserts
	Combine soufflé ingredients in the proper order using correct procedures.	
	Bake soufflé desserts the correct lengths of time in appropriately heated ovens.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Handle doughnut dough properly.	
	Roll and cut doughnuts out properly or utilize automatic doughnut dropper to shape the doughnuts.	
	Fry doughnuts using correct procedures and materials.	(NOTE: For further details on frying, see Meats, Seafoods, and Poultry in QUANTITY FOOD PRODUCTION Unit)
	Fill various types of doughnuts appropriately following correct procedures.	
	Prepare glaze or icing for doughnuts (when appropriate).	
	Glaze or ice doughnuts following correct procedures.	
	Prepare any appropriate garnishing ingredients for doughnuts following correct procedures.	
	Roll or dip doughnuts in garnishing ingredients using correct procedures and equipment.	
	Hold fried desserts under appropriate conditions before serving them.	Procedures for holding fried desserts

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Time soufflé dessert preparation correctly so that soufflés are served immediately upon removal from oven.	
* Prepare gelatin desserts for service.	Adhere to quality standards in preparation of gelatin desserts.	Quality standards for gelatin desserts
	Prepare a variety of gelatin desserts for service.	Types of gelatin desserts (Examples: snows, whips, Bavarians, Spanish creams)
	Follow manufacturers' directions carefully for preparing gelatin desserts using commercial type gelatin.	Procedures for preparing gelatin desserts
	Utilize the correct proportions of liquid and flavored gelatin or liquid and pure gelatin to prepare gelatin desserts.	
	Add appropriate sugar, flavoring, and color to pure gelatin mixtures.	
	Allow gelatin to set to proper thickness for the dessert being prepared.	
	Rice, cube, beat, or portion gelatin appropriately for various types of desserts.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Combine gelatin mixtures with appropriate ingredients, such as whipped egg whites, whipped creams, cream puddings, or melted ice cream, to create various desserts.	
	Hold gelatin desserts under appropriate conditions before they are served.	Procedures for storing gelatin desserts
* Make various frozen desserts.	Adhere to quality standards in preparation of frozen desserts.	Quality standards for frozen desserts
	Portion ice creams, ices, sherbets, and other frozen desserts using correct equipment and procedures for the food service establishments.	Procedures for portioning frozen desserts
	Garnish other desserts appropriately with ice cream using correct procedures and equipment.	Procedures for preparing a la mode desserts (desserts topped with ice cream)
	Utilize and combine ingredients in appropriate proportions as instructed by the food service establishment for preparing frozen desserts.	Procedures for preparing frozen desserts (Examples: sundaes, parfaits, banana splits, malts, freezes, floats, frappés, shakes)
	Plate frozen desserts appropriately.	Procedures for plating frozen desserts
	Garnish frozen desserts appropriately.	Procedures for garnishing frozen desserts

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Hold frozen desserts under appropriate conditions before they are served.	Procedures for storing frozen desserts

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QUANTITY FOOD PRODUCTION

SUBJECT: Cookies and Cakes

COMPETENCY: Ability to produce quality cakes and cookies for service in food service establishments.

OBJECTIVES: Utilize proper materials, food products, equipment, and procedures for preparing various cakes and cookies for service.

Distinguish quality standards for various cakes and cookies.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
Make cookies.	Adhere to quality standards in preparing various types of cookies.	Quality standards for cookies
	Prepare various types of cookies for dessert service.	Types of cookies: -sheet -drop -pressed -refrigerator -rolled
	Prepare various types of cookies using convenience products as directed.	Procedures for preparing cookies using convenience products
	Utilize ingredients in the proper proportions for various types of cookies.	Procedures for preparing cookies from scratch
	Follow standardized recipes for preparing various types of cookies.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Combine and mix ingredients correctly for the particular type of cookie being produced.	
	Chill stiff cookie dough at proper temperature.	
	Roll out dough properly for cookies.	
	Cut out rolled cookies correctly.	
	Place cookies on appropriately prepared baking sheets.	
	Portion semi-soft batters by an appropriate method for making drop cookies.	
	Deposit drop cookie dough correctly on baking sheets.	
	Spread semi-soft or soft cookie batters (when appropriate) evenly on baking sheets or pans to proper thickness.	
	Make very stiff cookie doughs into rolls for ice-box cookies.	
	Wrap ice-box cookie rolls properly.	
	Refrigerate or partially freeze ice-box cookie rolls properly.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Utilize slicing machine or sharp knife properly to cut ice-box cookie rolls.	
	Place sliced ice-box cookie dough on baking sheets properly.	
	Flatten cookies (when appropriate) on baking sheets using appropriate equipment and procedures.	
	Pack cookie dough correctly into cookie press to make pressed cookies.	
	Utilize cookie press correctly to deposit cookies on appropriately prepared baking sheets.	
	Preheat ovens properly for baking cookies.	
	Bake cookies for proper lengths of time at correct oven temperatures.	
	Remove cookies from pans while still warm.	
	Cool cookies properly, protecting them from drafts and too rapid cooling.	
	Pack various types of cookies properly for storage.	Procedures for packing cookies for storage

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Store cookies properly for expected storage time.	Procedures for storing cookies
	Frost or decorate cookies (when appropriate) using proper equipment and procedures.	Procedures for frosting and decorating cookies
* Make cakes.	Adhere to quality standards in preparation of cakes.	Quality standards for cakes
	Prepare various types of cakes for dessert service.	Types of cakes -batter -pound -foam
	Use the method of cake mixing appropriate for the cake being produced.	Cake mixing methods -blended -cake mix -conventional (creaming) -conventional sponge -muffin method
	Measure ingredients carefully and accurately to produce quality cakes.	Procedures for preparing cakes
	Utilize ingredients in the correct proportions for preparation of various types of cakes.	
	Add correct ingredients when using prepared cake mixes for producing cakes.	
	Mix cake ingredients correctly using equipment properly.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Select appropriate cake pans for the types of cakes being prepared.	
	Prepare pans as appropriate for the types of cakes being produced.	
	Pan cake batter to correct level in pans using correct equipment and procedures.	
	Preheat ovens properly for cake baking.	
	Place cake pans in oven properly to insure quality cakes.	
	Bake cakes at correct temperatures for correct lengths of time.	
	Cool cakes following recipe instructions and using proper equipment.	
	Free cakes from pan sides and place cakes properly on cooling racks.	
	Store cakes properly in a clean dry place.	Procedures for storing cakes
	Freeze cakes (when appropriate) properly for later use.	
	Cut cakes (when appropriate) into desired shapes using correct procedures and equipment.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Select various types of icings, fondants, glazes, and fillings appropriate for frosting and decorating various types of cakes.	Types of frostings, fondants, glazes, and fillings for cakes
	Use ingredients in correct proportions to make frostings, fondants, glazes, and cake decorations.	Procedures for preparing frostings, fondants, glazes, and fillings for cakes
	Mix, whip, or beat ingredients properly for preparation of frostings, fondants, glazes, fillings, and cake decorations.	
	Brush away all crumbs from cakes properly before decorating or frosting them.	
	Ice or glaze cakes using correct materials, procedures, and equipment.	Procedures for frosting, glazing, and decorating cakes
	Dry iced cakes before decorating them.	
	Decorate cakes using correct materials, procedures, and equipment.	
	Plate or package cakes properly for the particular food service establishment.	Procedures for plating or packaging cakes
	Cut cakes (when appropriate) using proper equipment and procedures.	Procedures for cutting cakes
	Plate cake slices properly.	Procedures for plating cake slices

QUANTITY FOOD PRODUCTION

SUBJECT: Pies, Pastries, and Meringues

COMPETENCY: Ability to achieve quality standards in preparing various types of pies, pastries, and meringues for service in food service establishments.

OBJECTIVES: Utilize proper materials, food products, equipment, and procedures for preparing various pies, pastries, and meringues for service.

Distinguish quality standards for various pies, pastries, and meringues.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
* Make pie crusts.	Adhere to quality standards in preparation of pie crusts.	Quality standards for pie crusts
	Use ingredients in correct proportions for pastry doughs.	Procedures for preparing pie crusts and pastry doughs
	Combine and mix ingredients properly for pie and pastry doughs.	
	Roll doughs in appropriate wraps or cloths (when appropriate) to store doughs for later use.	
	Refrigerate doughs properly for correct lengths of time when they are to be used later.	
	Roll out pie doughs by hand or by machine following correct procedures.	Procedures for preparing pie crusts

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Shape pie dough into pan properly to allow for shrinkage.	
	Prick (make holes in crust) or double pan pie dougn properly for single-crust pie shells.	
	Remove excess pie dough from edges of pan following correct procedures.	
	Bake single-crust pie shells (when appropriate) following proper procedures.	
	Seal the edges of two-crust pies carefully to prevent boil-out in the oven.	
	Make a hole in the center of the top crust of a two-crust pie shell to prevent boil-out in the oven.	
	Finish the edges of pie crusts attractively by appropriate methods.	
	Wash the top of two-crust pie shells with appropriate ingredients, if desired, to add color to the crust.	
	Follow correct procedures for making lattice top pie crusts.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Crush various types of crackers or wafers in preparation of crumb pie crusts.	Procedures for preparing crumb pie crusts (Examples: graham cracker, gingersnap, vanilla wafer, chocolate wafer)
	Follow correct procedures for mixing pie crust ingredients made of various types of crumbs.	
	Spread and press crumb mixtures evenly in pie pans following correct procedures.	
	Bake or refrigerate crumb pie crusts following correct procedures.	
	Store baked or unbaked pie crusts under the proper conditions for later use.	Procedures for holding pie crusts
** Make pastries.	Utilize ingredients in correct proportions for preparing puff pastes.	Procedures for preparing puff pastes
	Combine and mix the ingredients correctly for preparing puff pastes.	
	Roll out puff paste dough properly.	
	Cover puff paste dough with puff paste shortening following correct procedures.	

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SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Fold the puff paste dough properly.	
	Allow puff paste dough to rest in refrigerator for the proper length of time.	
	Roll out puff paste dough properly to its original shape.	
	Cut puff paste or pie dough into different shapes for various pastries using correct equipment and procedures.	Procedures for cutting puff pastes and pie dough to make various pastries
	Prepare various types of pastries for dessert service as directed.	Types of pastries (Examples: small pies, tarts, tartlets, turnovers, dumplings)
* Prepare fillings for pies and pastries.	Prepare a variety of fillings for pies and pastries as directed.	Types of fillings for pies and pastries (Examples: parfait pie fillings, chiffon pie fillings, fruit pie fillings) (NOTE: For further details on preparation of desserts which may be used in pie and pastry fillings, see Puddings, Custards, Souffles, Gelatin Desserts, and Frozen Desserts in QUANTITY FOOD PRODUCTION Unit)
	Prepare fruits for use in fruit pie and pastry fillings following proper procedures.	(NOTE: For further details on preparation of fruits, see Fruits and Vegetables in QUANTITY FOOD PRODUCTION Unit)

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Utilize appropriate ingredients for preparing pie and pastry fillings.	Procedures for preparing fillings for pies and pastries
	Combine ingredients properly when preparing pie and pastry fillings.	
	Follow correct procedures for cooking fillings, as appropriate, before filling pie or pastry shells.	
Prepare pastries and pies for service.	Fill pie and pastry shells with fillings to appropriate levels using correct equipment and procedures.	
	Refrigerate or freeze filled pies or pastries (when appropriate) for proper lengths of time to allow proper setting or freezing.	
	Bake filled pies (when appropriate) at proper temperatures for correct lengths of time.	
	Fry pastries (when appropriate) following correct procedures.	(NOTE: For further details on frying, see Meats, Seafoods, and Poultry in QUANTITY FOOD PRODUCTION Unit)
	Cool baked or fried pies and pastries (when appropriate) properly before serving.	

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SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Garnish and decorate pies and pastries using proper equipment and procedures.	Procedures for garnishing and decorating pies and pastries
	Store pies and pastries under the proper conditions before serving them.	Procedures for storing pies and pastries
	Portion pies using correct procedures and equipment.	Procedures for portioning pies
	Plate pies and pastries appropriately.	Procedures for plating pies and pastries
* Prepare hard and soft meringues.	Adhere to quality standards in preparation of hard and soft meringues.	Quality standards for hard and soft meringues
	Utilize ingredients in the correct proportions for preparation of hard and soft meringues.	Procedures for preparing hard and soft meringues
	Combine and whip ingredients correctly to produce quality meringues.	
	Follow correct procedures for placing hard meringues on baking sheets, ungreased paper, or non-resinous wooden boards to bake.	
	Utilize equipment properly to shape hard meringues for baking and serving	
	Bake hard meringues for proper length of time.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Place soft meringues on warm dessert fillings or use correct stabilizers to prevent slippage.	
	Spread meringues on dessert fillings properly, attaching the edges well.	
	Utilize correct portions of hard and soft meringues for each dessert prepared.	
	Follow the manufacturers' directions carefully when preparing meringues from meringue powders.	Procedures for preparing meringues from meringue powders
	Hold meringues under the proper conditions before service.	Procedures for holding meringues

FOOD SERVICE TECHNIQUES

SUBJECT: Opening and Closing Duties

COMPETENCY: Ability to display skills in performance of opening and closing duties in food service establishments.

OBJECTIVE: Utilize correct materials, equipment, and procedures for performing set-up and closing duties in food service establishments.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
* Set up establishment for food service.	Check for litter and dirt in parking area, building exterior, and lobby as directed.	Procedures for set-up of food service establishment
	Inspect and clean washrooms.	
	Check paper, soap, and paper towel dispensers in washrooms as directed.	
	Arrange chairs in eating area as directed.	
	Check cooking and dining areas for dirty dishes.	
	Return any dirty dishes or equipment to dishtable for washing.	
	Bring supplies requested by cook from storage areas.	
	Place menu sheets or folders on tables as appropriate in short-order establishment.	-Short order

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Verify cash on hand when setting up cash registers.	
	Set up change bank in cash registers.	
	Check and supply all beverage machines.	
	Arrange prepared items (such as bakery goods) for display as directed.	
	Check ice machines.	
	Assemble paper supplies as directed.	
	Arrange cups in racks correctly.	
	Check packaged food items.	
	Fill condiment and napkin containers on tables or counter using appropriate procedures.	
	Place various articles on tables as directed.	
	Check and polish glass shelves, metal surfaces, and counter tops.	-Cafeteria-line
	Set up menu board(s) accurately with correct prices.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Arrange condiment containers, crackers, relishes, and prepackaged food items as directed.	
	Prepare side stands and mobile utility carts with necessary items for service.	
	Roll flatware in napkins, when directed, for customer use.	
	Place clean, dry trays, flatware, and napkins in designated places for customer service.	
	Prepare the cold pans as directed.	
	Prepare the hot food unit as directed.	
	Portion and appropriately plate items which are arranged for self-service.	
	Arrange an adequate supply of dishes and serving utensils in appropriate places.	
	Display various food items appropriately on cafeteria line.	
	Follow correct procedures for taking dining room reservations.	-Seated guests
	Prepare menu sheets or folders for customers' use.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Place menu sheets and folders in designated place for use in customer service.	
	Verify cash on hand when setting up cash registers.	
	Set up change bank.	
	Check dishes for cleanliness, cracks, and chips.	
	Fill condiment containers on tables following correct procedures.	
	Prepare any items needed on side stands.	
	Stock side stands with any necessary articles and food items.	
	Place tablecloth, place mats, and other table coverings on tables correctly.	
	Fold napkins as directed.	
	Arrange covers on tables, as directed, for the style of service to be used.	
	Prepare tables with appropriate table accessories.	

FOOD SERVICE TECHNIQUES

SUBJECT: Bussing Duties

COMPETENCY: Ability to display skills in performance of bussing duties in food service establishments.

OBJECTIVE: Utilize correct materials, equipment, and procedures for performing bussing duties in food service establishments.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
Perform bussing services.	Replace soiled tablecloths as necessary while customers are still seated and when seats are unoccupied. Utilize correct equipment and procedures for clearing tables and loading bus boxes or trays. Pick up trays or carts from customers' rooms when room service has been provided. Dispose of waste left on tables and trays in an appropriate manner. Empty customer trash cans. Clean table tops and dust chairs properly. Replace chairs in orderly arrangement after guests leave.	Procedures for performing bussing services -Short-order -Cafeteria-line -Seated guest -Room service

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SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Clean up spills and breakage using safe and sanitary procedures.	
	Transport dirty dishes, glassware and flatware to dishtable and deposit them correctly for washing.	
	Dispose of plate wastes and other waste items following correct procedures.	
Complete clean-up procedures after serving hours.	Store or dispose of leftover foods as directed.	Procedures for clean-up after serving hours -Short-order -Cafeteria-line -Seated guest -Room service (NOTE: For further details see Sanitation in INTRODUCTION TO THE FOOD SERVICE INDUSTRY Unit, Small Equipment for Food Preparation and Service, Large Equipment for Food Preparation and Service, and Large Equipment for Cooking Food in EQUIPMENT Unit)
	Empty hot food unit, cold pans, and clear counter tops, glass shelves, and tray and flatware holders.	
	Dispose of all waste following sanitary procedures.	
	Clean all surfaces, equipment, utensils, and furnishings as directed.	
	Refill salt, pepper, condiment, and other accessory containers.	

FOOD SERVICE TECHNIQUES

SUBJECT: Customer, Employee, and Resident Food Service

COMPETENCY: Ability to assume responsibility related to performance of food service tasks in various types of food service establishments.

OBJECTIVES: Utilize correct materials, equipment, and procedures for performing food service tasks in food service establishments.

Demonstrate employee traits which contribute to customer satisfaction.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
* Receive and attend to needs of customers as they arrive.	Exhibit desirable attitude and appropriate manner when greeting customers.	Employee characteristics which contribute to customer satisfaction
	Seat customers following correct procedures.	Procedures for attending to customers' needs -Seated guests
	Serve water and/or appetizers to customers as appropriate for the food service establishment.	
	Present menus to customers.	
	Answer customers' questions regarding menu choices and food preparation.	
	Achieve good customer relations in various situations which occur in the food service establishment.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Report situations involving customer problems to teacher as directed and as appropriate.	
* Take customers' orders.	Use specified order form correctly for recording customers' orders.	Procedures for taking orders -Short-order -Room service
	Verify each customer's order following correct procedures.	
	Identify orders with customers as appropriate for type of service.	
	Take telephone orders following correct procedures.	
	Ask customers for their preference of food items as appropriate.	-Cafeteria-line
	Suggest menu choices to customers if they need help.	
	Allow guests appropriate amount of time to make food selections.	-Seated guests
	Clarify all orders when in doubt before recording them.	
	Utilize abbreviations as directed when writing orders.	
	Record each guest's selections following correct procedures.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Make note of guests' seating arrangement on check so that orders may be delivered correctly.	
	Read each guest's order for verification and to make necessary changes.	
	Pick up menus when orders are completed.	
	Take customers' orders for dessert at appropriate time.	
* Relay orders to kitchen.	Report orders to kitchen at appropriate times to insure that foods are ready for service when needed.	Procedures for reporting orders to kitchen -Short-order -Cafeteria-line -Seated guests -Room service
	Utilize procedures for requesting orders from the kitchen as directed.	
	Utilize abbreviated verbal communication as appropriate for reporting orders to kitchen.	
Plate or package foods for service.	Portion foods as directed.	Procedures for plating and packaging foods -Short-order -Cafeteria-line -Seated guests -Room service
	Plate and package various food items as directed.	
Examine foods before serving them.	Check accuracy of items prepared against recorded orders.	Procedures for examining foods before service

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Check to see that foods are attractively served.	-Short order -Cafeteria-line -Seated guests -Room service
	Check foods for correct portioning before serving them.	
* Serve food and beverages to customers.	Transport foods and beverages to customers' rooms using correct equipment and procedures.	Procedures for serving foods and beverages -Room service
	Deliver orders to customers as directed.	
	Give correct orders to customers.	-Short-order
	Follow directions for serving orders to customers.	
	Provide food accompaniments (such as ketchup, salt, or pepper) as requested and needed.	
	Follow correct procedures for handing foods to customers as they proceed through line.	-Cafeteria-line
	Aid in carrying customers' trays to tables as directed.	
	Serve foods to customers at tables as appropriate when food is not prepared for service in the line.	
	Refill customers' tea, coffee, and water containers as needed.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Replenish or furnish items requested by customers.	
	Re-stock the serving counter as needed during slow periods.	
	Observe signals which indicate an order is ready.	-Seated guests
	Pick up foods from kitchen immediately upon completion of preparation.	
	Load trays as appropriate with food and beverage items.	
	Follow correct procedures for transporting food and beverages from kitchen to tables for service.	
	Serve foods, following correct procedures for the style of service provided.	
	Deliver correct order to each guest.	
	Follow correct procedures for placing foods and beverages on tables.	
	Handle all dishes, glassware, and flatware correctly.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Provide all appropriate accompaniments as needed and requested by customers. Replenish coffee, tea, water, rolls, butter, and other items when needed. Follow correct procedures for clearing dishes and flatware from tables during service. Serve courses at appropriate times using correct procedures. Time the service of courses appropriately so that all guests at a table have completed the previous course. Follow policy of establishment for supplying second helpings to customers and recording additional charges on bill.	

FOOD SERVICE TECHNIQUES

SUBJECT: Money Handling

COMPETENCY: Ability to demonstrate skills in performance of business transactions involving money exchange in food service establishments.

OBJECTIVES: Utilize correct materials, equipment, and procedures for handling money in food service establishments.

Demonstrate employee traits which contribute to customer satisfaction.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
* Record total prices of items selected by customers.	Record prices of customers' choices accurately on adding machine or cash register as they move through the line.	Procedures for recording total prices of items selected by customers -Cafeteria-line
	Combine cost of more than one customer's selections on each tape as appropriate.	
	Present adding machine tape to customer in an appropriate manner.	
	Record prices of items selected on cash register or on customer's bill.	-Short-order -Seated guest -Room service
* Receive payment for meals.	Figure customer's bill accurately.	Procedures for receiving payment -Short-order -Cafeteria-line -Seated guest -Room service

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Ask for customers' comments, as appropriate, concerning their satisfaction with food and service.	
	Follow correct procedures for presenting check.	
	Accept payment (cash, checks, credit cards) from customers as directed.	
	Operate cash register correctly.	
	Return accurate amount of change to customers following correct procedures.	
** Compute cash received.	Compute cash taken in at times directed following correct procedures.	Procedures for computing cash received -Short-order -Cafeteria-line -Seated guests -Room service

FOOD SERVICE TECHNIQUES

SUBJECT: Patient Service

COMPETENCY: Ability to perform various tasks before, during, and after service of food to patients.

OBJECTIVES: Utilize correct materials, equipment, and procedures for performing set-up, food service, and bussing services when serving patients.

Follow directions accurately for filling and serving patients' trays.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	(NOTE: Equipment and patients are not available for developing this concept. Concepts may be developed through field trip to hospital or nursing home food service facility.)	Types of food service systems used in hospitals and nursing homes -Decentralized -Centralized -Room service -Dining room (NOTE: For further details on room service and dining room service, see the appropriate sections of FOOD SERVICE TECHNIQUES)
** Load bulk food portions into heated or cooled carts.		Procedures for loading bulk food portions in decentralized food service
** Transport bulk food portions to floor or area kitchens.		Procedures for transporting bulk food portions in decentralized food service
** Prepare patients' trays for service.		Procedures for preparing trays for service

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
** Check trays before service.		Procedures for checking trays before service
** Transport trays to corridor outside patients' rooms.		Procedures for transporting trays to patients' rooms
** Serve meals to patients (if directed.)		Procedures for serving meals to patients
** Return trays and utensils to dishwashing area.		Procedures for returning trays and utensils to dishwashing area

FOOD SERVICE TECHNIQUES

SUBJECT: Catering Service

COMPETENCY: Ability to demonstrate skills in performance of various catering tasks before, during, and after service of food to customers.

OBJECTIVES: Utilize correct materials, equipment, and procedures for performing catering services.

Demonstrate employee characteristics which contribute to customer satisfaction.

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
		Types of catering services -On-premise banquets and events -Off-premise (location) banquets and events -Mobile unit food service -In-plant and in-office food service -Institutional food service -Concession food service -Coffee service -Take-out parties -Delivery-only parties -Vending service (NOTE: For most types of catering services, the service techniques involved differ little from restaurant, cafeteria, or short-order service)
* Package foods in portioned servings.	Utilize materials for packaging foods as directed.	Procedures for packaging individual food portions for catered events

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Portion foods as directed for packaging.	
	Make up individual food packages when directed according to correct specifications.	
* Pack needed equipment for off-premise catering.	Obtain equipment which is specified for the catering event.	Types of equipment needed for off-premise catering (Examples: glassware, trays, candelabra, chafing dishes, flatware, linen, kitchen utensils, pitchers, coffee urns)
	Utilize appropriate packing cases for packing equipment to be moved.	Procedures for packing catering equipment
	Pack catering equipment correctly for transporting.	
	Place packed equipment in vehicle for transporting.	
* Pack bulk portions of foods and beverages for off-premise catering.	Utilize appropriate portable equipment for transporting foods and beverages.	Procedures for packing foods and beverages for off-premise catering
	Pack various foods and beverages for transportation using safe and sanitary methods.	
	Arrange packed foods and beverages in vehicle(s).	
* Transport catering equipment, foods, and beverages to off-premise location.	Keep perishable foods at proper holding temperatures while in transit to locations.	Procedures for transporting equipment, foods, and beverages

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	Follow instructions carefully for transporting foods and beverages to off-premise locations.	
* Set up rooms for catered parties.	Obtain accurate information for use in determining appropriate arrangement of tables for parties.	Factors to consider when arranging tables for catered parties -Number of guests -Type of function -Type of service -Number of waiters and waitresses needed -Size and shape of room -Use of head table
	Consider all important factors when deciding on appropriate table arrangements.	
	Unload equipment needed for setting up room.	
	Arrange tables as directed.	
	Set up correct amount of space needed for each guest's cover (place setting).	Procedures for preparing tables and rooms for parties
	Arrange linen, flatware, glassware, and decorative items as instructed.	
	Set up special equipment (such as music equipment, public address system, or platform) as directed.	
* Unload and deliver foods and beverages.	Follow correct procedures for unloading foods and beverages at off-premise location.	Procedures for unloading and delivering foods and beverages
	Organize foods and beverages correctly for the type of service to be provided.	

SUB-COMPETENCIES	LABORATORY SKILLS	CLASSROOM CONCEPTS
	(NOTE: A "catered" function could be simulated in PELE laboratory. Food might not actually be transported but catered banquets and other special events could be held in the laboratory or food might be provided for a school picnic with minimal or adapted equipment.)	

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FOOD SERVICE

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G	Grade level readability	s.p.	school price

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Food Service. New Brunswick, New Jersey: Vocational-Technical Curriculum Laboratory, 1971. 193 pp. ($3.00, l.p.; $2.50, l.p., teacher's guide. Cleanliness, safety, table setting, kitchen equipment, portioning, serving and removing food, preparing simple desserts and salads; designed for instructing deaf children in food service, and suitable for very slow-learning children.)

Food Service Career Education Series. Boston, Massachusetts: Cahner's Books International, Inc., 1974. 72-170 pp. each. ($3.75, l.p.; each module. Eighteen modules. Competency-based training program for food service career training with text/workbook modules for kitchen sanitation, food service vocabulary, food service safety, cleaning and sanitation, bussing attendant, customer/employee relationships, food care and food storage, sandwich preparation, cashiering, salad preparation, counter service, waiter/waitress, host/hostess, dishwashing procedures, fry cooking, grill cooking, breakfast preparation and luncheon cooking.)

Food Service Employee, Teacher Edition. Rev. ed. Lubbock, Texas: Home Economics Instructional Materials Center, 1975. 315 pp. ($12.00, l.p., in Texas; $15.00, l.p., out-of-state; $7.50, l.p., student copy in Texas; $10.00, l.p., student copy out-of-state. Sanitation; safety; commercial food service equipment; nutrition; food production; work stations; table service; receiving, storing and issuing food and supplies. G: 9, student edition.)

Food Service Management. Austin, Texas: Instructional Materials Center, 1975. 148 pp. ($7.00, l.p.; $2.00, l.p., answer book. Career opportunities, forms of ownership, promotion, menu planning, sanitation, personal policies, laws and taxes, financial records and statements.)

Food Service Manual for Health Care Institutions. Chicago, Illinois: American Hospital Association, 1972. 332 pp. ($8.50, l.p. Organization, staffing, management, systems, layout, equipment, menu planning, purchasing, storage, food preparation, sanitation, financial control, and cost analysis.)

Fowler, Sina Faye, et al. Food For Fifty. 5th ed. New York, New York: John Wiley and Sons, Inc., 1971. 548 pp. ($14.95, l.p. Weights and measures, food substitutions and proportions, baking temperatures, syrups and candies, deep-fat frying, spices and seasonings, cooking terms, recipes, and menu planning.)

Good Housekeeping Complete Book of Cake Decorating. New York, New York: Franklin Watts, Inc., 1973. 192 pp. ($8.95, l.p. Making and decorating spectacular cakes for all occasions; recipes for cakes and frostings; how to use decorating tubes; cake mixes to cut time and work; and how to make flowers, leaves, and other ornaments.)

Guthrie, Helen Andrews. Introductory Nutrition. 3rd ed. Saint Louis, Missouri: C.V. Mosby Company, 1975. 576 pp. ($12.50, l.p. Basic principles of nutrition: carbohydrates, fats or lipids, protein, energy balance, mineral elements, macronutrient elements, micronutrient elements, water, vitamins, fat-soluble vitamins, water-soluble vitamins; applied nutrition: selection of an adequate diet, evaluation of nutritional status, nutrition in pregnancy and lactation, infant nutrition, nutrition from infancy to adulthood, nutritional considerations in aging, weight control, food faddism and quackery.)

Harris, Ann T.M. A Textbook of Hospital Catering. Boston, Massachusetts: Cahner's Books International, Inc., 1975. 306 pp. ($12.95, l.p. Hospital foodservices.)

Harris, Ellen Adeline. Professional Restaurant Service. 1st ed. New York, New York: McGraw-Hill Book Company, 1966. 99 pp. ($7.96, l.p. Meeting the public, personal appearance, service of food and applying for a job in restaurant service.)

Ireland, Richard C. The Professional Waitress: Training Resource Manual. Rev. ed. Chicago, Illinois: National Restaurant Association. 280 pp. ($29.95, l.p. Developing training programs for all types of food-service operations, waitress training, and reference list of available training materials and tests.)

Kahrl, William L. Advanced Modern Food and Beverage Service. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1977. 224 pp. ($11.95, l.p. Cooking, accounting, and modern operating techniques.)

Kahrl, William L. Introduction to Modern Food and Beverage Service. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1976. 302 pp. ($11.95, l.p. Size, scope, and opportunity in the food service industry; transitions within the industry; career and experience; control: financial reports, purchasing, receiving, menus; merchandising, buying, storing, and handling; food preparation; food and beverage service; food and beverage serving; warehandling; personnel; sanitation and safety, outside assistance; and equipment.)

Kaplan, Aaron. Elements of Food Production and Baking. New York, New York: ITT Educational Services, Inc., 1971. 310 pp. ($12.50, l.p. Order from: Bobbs-Merrill Educational Publishing. Sanitation and safety; kitchen tools and equipment; the basic methods of cooking; stocks, soups, sauces and gravies; meats; seafood; poultry and game; vegetables, starchy products and fruits; eggs and cheese; salads and salad dressings; hors d'oeuvres, canapes, sandwiches; elements of baking; pies, pastries, cakes, cookies, icings, desserts; coffee and tea; convenience foods; and microwave ovens.)

Kinder, Faye. Meal Management. 4th ed. New York, New York: Macmillan Publishing Company, Inc., 1973. 579 pp. ($12.95, l.p. Meal management; food laws and the regulation of the food supply; purchasing food; good nutrition; planned spending; satisfying meals; controlled use of time; styles of meal service, setting the table; waiting the table; etiquette of the table; managing guest meals; buffet meals; teas, receptions, and other occasions with light refreshments.)

Kirschmann, John D. Nutrition Almanac. New York, New York: McGraw-Hill Book Company, 1975. 272 pp. ($5.95, l.p. Nutrition and health; sources of calories: carbohydrates, fats, and proteins; nutrients; ailments and stressful conditions; foods, beverages, and supplementary foods; table of food composition; essential amino acid contents of some foods; a sample of a nutritionally, balanced meal; nutrient allowance chart; computerized diet analysis; and glossary.)

Klain, Peter. Food Service/Lodging English. Boston, Massachusetts: Cahner's Books International, Inc., 1971. 160 pp. ($5.95, l.p. Writing letters of application, personal histories, filling out applications, using the telephone properly, communicating on a one-to-one basis, writing publicity releases; terms, definitions, and rules of grammar for the trainee in the food service industry.)

Knoll, Anne. Food Service Management: A Human Relations Approach. New York, New York: McGraw-Hill Book Company, 1976. 208 pp. ($7.50, l.p.; $3.00, l.p., instructor's manual. Introduction to food service management; planning and organizing a food service operation; managing and directing a food service operation; the staff; quality control production, cost; and growth of the food service training and opportunities.)

Kotschevar, Lendal H. Quantity Food Production. 3rd ed. Philadelphia, Pennsylvania: International Ideas, Inc., 1975. 662 pp. ($40.00, l.p. Kitchen production, bakeshop production, management, planning, work methods, sanitation, nutrition, cooking and heat, and quantity food equipment.)

Kowtaluk, Helen, and Kopan, Alice Orphanos. Food for Today. Peoria, Illinois: Chas. A. Bennett Co., Inc., 1977. 573 pp. ($8.88, s.p. Nutrition for good health, consumer decisions, food preparation and service, creative cooking, and careers; each chapter has behavioral objectives, key terms, nutrition charts, tables, and list of food terms.)

Laine, Steven, and Laine, Iris. Promotion in Food Service. New York, New York: McGraw-Hill Book Company, 1972. ($8.50, l.p.; $2.00, l.p., instructor's manual. Guide for commercial food service programs, merchandising, advertising, publicity, and public relations.)

Lange, Howard F. Catering. Rochelle Park, New Jersey: Hayden Book Co., Inc., 1955. 128 pp. ($6.35, l.p. Prenuptial parties, weddings, Bar Mitzvahs, anniversaries, business lunches, breakfasts, lunches, teas, and dinners; necessary equipment; staff; and proper etiquette.)

Lehrman, Lewis. Dining Room Service. New York, New York: ITT Educational Services, Inc., 1971. 204 pp. ($10.12, l.p.; $5.00, l.p., teacher's manual; $5.10, l.p., workbook. Order from: Bobbs-Merrill Co., Inc. Food and beverage service, dining room management, dining room equipment and supplies, human relations, service personnel's merchandising role, types of course service, preparing the dining room, seating guests and taking orders, essentials of food service, showmanship in dining room service, special service situations, and counter service.)

S Lewis, Dora S.; Peckham, Gladys C.; and Hovey, Helen S. Family Meals and Hospitality. New York, New York: Macmillan Company, 1972. 560 pp. ($9.57, s.p. Food and health, attractive meals, entertaining, mealtime manners, special meals, preserving foods, advancing food technology, malnutrition and food supply, and planning careers in food. G: 9.)

Longree, Karla, ed. Quantity Food Sanitation. 2nd ed. New York, New York: John Wiley and Sons, Inc., 1972. 422 pp. ($19.50, l.p. Food spoilage, microorganisms, food borne illnesses, causes of food borne gastroenteric outbreaks, purchasing and storing food, contamination of ingredients, multiplication of bacterial contaminants, time-temperature control, educating food service personnel in food sanitation.)

Longree, Karla, and Blaker, Gertrude G. Sanitary Techniques in Food Service. New York, New York: John Wiley and Sons, Inc., 1971. 225 pp. ($7.75, l.p. Food sanitation and microbiology; food spoilage and food borne illnesses; sanitary practice, education, and training in sanitation of food service personnel.)

Lundberg, Donald E., and Armatas, James P. The Management of People in Hotels, Restaurants, and Clubs. 3rd ed. Dubuque, Iowa: William C. Brown Company, Publishers, 1974. 231 pp. ($12.95, l.p. Motivating employees, job analysis, training, rating employee performance, analyzing and simplifying work, morale, fire and accident prevention.)

McKnight Staff. Exploring Careers in Hospitality and Food Service. 4th ed. Bloomington, Illinois: McKnight Publishing Company, 1975. 646 pp. ($23.80, s.p., professional set, text-activity book, teacher's guide; $9.97, s.p., text-activity book; $18.00, s.p., teacher's guide. Hospitality; travel convenience; lodging; entertainment and recreation; establishing a resort; introduction to the food industry; food manufacturing; fast food service; family food service; gourmet food service; and the future in hospitality and food service.)

Mizer, David A., and Porter, Mary. Food Preparation for the Professional. San Francisco, California: Canfield Press, 1978. 448 pp. ($12.95, l.p.; companion workbook and lab manual available. The kitchen; sanitation, safety, and equipment; terms and concepts; recipes and measurement; building flavor, body, and texture; seasoning, flavoring, spices, herbs; soups; sauces; butters and butter sauces; precooking readiness; vegetables, rice, and pasta; fish, poultry, meat and breakfast cookery; salad dressings and cold sauces; salads, appetizers, and cheese; food for buffets; out of the lab and into production; planning and presenting the meal.)

Morgan, William J., Jr. Supervision and Management of Quantity Food Preparation--Principles and Procedures. Berkeley, California: McCutchan Publishing Corporation, 1974. 380 pp. ($19.35, l.p. Management of food service operations including facilities, equipment, menu planning, purchasing, storage, sanitation, safety, food preparation, and service.)

Ray, Mary Frey, and Lewis, Evelyn Jones. Exploring Professional Cooking. Peoria, Illinois: Chas. A. Bennett Co., Inc., 1976. 375 pp. ($11.28, l.p.; $10.00, l.p., teacher's guide; $5.28, l.p., workbook. Principles of quantity food cooking for standard equipment in home economics laboratories, beginning jobs, menu planning, cost control, sanitation, safety, standardization, work stations, and work experience.)

Rombauer, Irma S., and Becker, Marion R. The Joy of Cooking. Rev. ed. Indianapolis, Indiana: Bobbs-Merrill Company, Inc., 1975. 849 pp. ($10.95, l.p.; $4.95, l.p., paperback; $1.95, l.p., paperback, Vol. 1; $1.95, l.p., paperback, Vol. 2. Recipes; cross reference index; listing of classic and foreign terms; hints on herbs, spices, and seasonings; menus; and calorie charts.)

A Safety Self Inspection Program for Food Service Operators. Chicago, Illinois: National Restaurant Association, 1974. 82 pp. ($2.50, l.p. Personnel safeness, working practices, facilities and equipment, functional areas of a food service operation, coverage of the company safety program, occupational safety and health record-keeping, and other requirements.)

Self-Inspection Sanitation Program for Food Service Operators. Chicago, Illinois: National Restaurant Association, 1973. 64 pp. ($2.50, l.p. Personnel safeness, food handling practices, functional areas of a food service operation and subjects of customer concern.)

Shank, Dorothy E., et al. Guide to Modern Meals. 2nd ed. New York, New York: McGraw-Hill Book Company, 1969. 576 pp. ($10.44, l.p. Planning meals, preparation of nutritious meals, time and money management, recipes, equipment, convenience foods, and food value table.

Small, M.R. *Catering for Functions*. Boston, Massachusetts: Cahner's Books International, Inc., 1976. 256 pp. ($18.00, l.p. Special occasions, weddings, ethnic functions, and outside functions.)

Smith, E. Evelyn, and Crusius, Vera C. *Handbook on Quantity Food Management*. 2nd ed. Minneapolis, Minnesota: Burgess Publishing Company, 1970. 191 pp. ($7.95, l.p. Organization and planning, scientific principles and techniques applicable to quantity cookery, standardization, conservation, waste, cost control, modern food units, work simplification, personnel, sanitation techniques and accident prevention.)

Splaver, Bernard. *Successful Catering*. Boston, Massachusetts: Cahner's Books International, Inc., 1975. 325 pp. ($14.95, l.p. Delivery equipment , production and storage equipment, successful parties, and kosher catering.)

Stokes, John W. *Food Service in Industry and Institutions*. 2nd ed. Dubuque, Iowa: William C. Brown Company, Publishers, 1973. 280 pp. ($10.95, l.p. History of food service; management and supervision; design and equipment; lighting; preventive maintenance; purchasing; receiving; storage; menu planning; food preparation; distribution, service, sanitation, safety, fire prevention, law and regulations.)

Stokes, John W. *How to Manage a Restaurant or Institutional Food Service*. 3rd ed. Dubuque, Iowa: William C. Brown Company, Publishers, 1978. 343 pp. ($1[illegible].95, l.p. Food service industry; effective management; organization; menu planning; food service; kitchen equipment and layout; purchasing, receiving, and storage; quantity cookery; cost control; sanitation, safety, and fire protection; laws and regulations.)

Sultan, William J. *Elementary Baking*. New York, New York: McGraw-Hill Book Company, 1969. 268 pp. ($10.00, l.p.; $6.40, l.p., workbook. Basic guide to baking and preparation of quick bread and yeast bread products, fried products, pies, cakes, puff pastry, and cookies.)

Thomas, Kathleen, M., ed. *Winning Sandwiches for Menu Makers*. Chicago, Illinois: National Restaurant Association, 1976. 229 pp. ($16.50, l.p. Sandwiches for the tea room, lunchroom, cafeteria, vending situation---from prepared to order and "to go" to elegant knife and fork sandwiches; efficient methods of preparing and serving, quantity preparation, how to handle and store breads, types of loaves, and the use of microwave heating.)

Thorner, Marvin Edward. *Convenience and Fast Food Handbook*. Westport, Connecticut: AVI Publishing Company, Inc., 1973. 358 pp. ($21.00, l.p. History of convenience and fast foods, the fast food preparation center, and the control, evaluation, and handling of efficiency foods. G: 11.)

Training the Food Service Worker. Chicago, Illinois: Hospital Research and Educational Trust of the AHA, 1967. 155 pp. ($5.00, l.p. Order from: Robert J. Brady Company. Orientation to the health care institution and the dietary department, sanitation, personal hygiene, control of pests, housekeeping, safety, nutrition, receiving and storing food, using and maintaining dietary department equipment, preparing hot and cold foods, production planning, nonfood supplies, employee food service, patient food service, dishwashing, interaction with patients, visitors, and hospital personnel and cost control.)

Villella, Joseph A. The Hospitality Industry--The World of Food Service. New York, New York: McGraw-Hill Book Company, 1975. 342 pp. ($10.95, l.p.; $2.50, l.p., instructor's manual and key. History of industry, types of operations, jobs, departments, stations, equipment, dishwashing, pot and pan washing, ware washing and cleaning machines, raw materials and main foods, sanitation, convenience foods and automatic vending, facilities design, and house rules and personal qualities.)

Weinberg, Julia. Gourmet Bouquet--Decorative Centerpieces to Eat and Enjoy. Altoona, Pennsylvania: Butterick Publishing, 1977. 172 pp. ($7.47, s.p. Instructions for flowers, filler foilage, and accent suggestions for edible centerpieces; vegetable color wheel; and information on gourmet gadgetry.)

Weiss, Edith, and Weiss, Hal. Catering Handbook. New York, New York: Hayden Book Company, Inc., 1971. 304 pp. ($14.40, l.p. Types of catering services, equipment, staffing, promoting a catering business, preparing menus, room arrangements, preparation of food and business practices. G: 10.)

S White, Ruth Bennett. Food and Your Future. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1972. 470 pp. ($9.99, l.p. Nutrients, choices of foods for healthy bodies, meal planning and management. G: 10.)

White, Ruth Bennett, You and Your Food. 3rd ed. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1976. 470 pp. ($13.32, l.p.; $1.86, l.p., teacher's guide. Nutrition; chemical additives; milk and milk products; eggs in your meals; fruits; planning, preparing, and serving breakfast; vegetables; cereal-bread; balance your lunch; meat; fats and sugars; dinner; meal service and manners; foods for special needs; and low-calorie, high-nutrient recipes.)

Wilkinson, Julie. The Complete Book of Cooking Equipment. Rev. ed. Boston, Massachusetts: Cahner's Publishing Company, 1975. 320 pp. ($18.95, s.p. Operation and maintenance of steam kettles and cookers; deck, revolving, convection, and microwave ovens; ranges; grills, griddles, broilers, fryers, and food warming lamps; dry stores, refrigeration equipment, and freezers; section of programmed maintenance training materials; recipes; quizes; tips on use from operators; and a comprehensive glossary.)

Winn, Charles S., and Baker, Marilyn Carruth. Exploring Occupations in Food Service and Home Economics. McGraw-Hill Book Company, 1976. 152 pp. ($4.32, l.p. Jobs and the kind of work done in the areas of dietetics, child care, clothesmaking, restaurant management, front-of-the-house restaurant staff, cooking, and baking.)

Wolfe, Kenneth C. Cooking For The Professional Chef: A Structured Approach. Albany, New York: Delmar Publishers, 1976. 264 pp. ($7.50, s.p.; $0.50, s.p., instructor's guide. Modern cooking technology, methods of cooking, handling of foods before cooking, actual food preparation, and salad pantry.)

Wood, Marion, and Harris, Katherine W. *Quantity Recipes*. Rev. ed. Ithaca, New York: New York State College of Home Economics at Cornell University, 1973. 233 pp. ($2.50, l.p. Food preparation guides and recipes.)

PAMPHLETS

Borisoff, Norman. *Nick the Waiter*. New York, New York: McGraw-Hill Book Company, 1969. 43 pp. ($1.48, l.p. Story about a boy who becomes a waiter. Easy reading.)

Career Ladders in the Foodservice Industry. Chicago, Illinois: National Restaurant Association, 1971. 26 pp. ($2.00, l.p. Career ladders and manpower development for nonmanagement personnel.)

Deitz, Susan. *The Correct Waitress*. Rochelle Park, New Jersey: Hayden Book Company, Inc., 1952. 64 pp. ($2.50, l.p. Advice, tips and techniques on how waitresses and waiters can improve the quality of their service.)

Health and Safety Guide for Eating and Drinking Places. Cincinnati, Ohio: National Institute for Occupational Safety and Health, 1976. 63 pp. (Free, single copy, enclose self-addressed mailing label. Employee training, good housekeeping, automatic sprinkler systems, control of hazardous materials, eating and drinking places, frequently violated regulations, exits and exit markings, occupational health and environmental controls, occupational noise exposure, personal protective equipment, general environmental controls, fire protection, medical and first aid.)

Higgins, Eleanor, and Kent State University Food Service Department. *Food Training Routines I and II*. Boston, Massachusettes: Cahner's Books International, Inc., 1973. 100 pp. ($5.95, l.p. Knives, convection ovens, rotary ovens, slicers, choppers, food cutters, mixers, compartment steamers, grills, deep-fat fryers, and steam-jacketed kettles.)

Keister, Douglas C. *How to Increase Profits With Portion Control*. Chicago, Illinois: National Restaurant Association, 1966. 51 pp. ($2.50, l.p. Analysis of operation, menu planning, pre-costing the menu, purchase specifications receiving control, storeroom control, production control, sales control, and analysis.)

Kipniss, Jean. *Judy the Waitress*. New York, New York: McGraw-Hill Book Company, 1966. 43 pp. ($1.48, l.p. Story about a girl who becomes a waitress. Easy reading.)

National Sanitation Foundation. *Commercial Cooking and Warming Equipment*. *(Standard #4)*. Rev. ed. Chicago, Illinois: National Restaurant Association, 1975. 24 pp. ($1.00, l.p. Sanitation requirements for commercial cooking and hot food storage equipment: ranges, ovens, deep fat fryers, fat filters, griddles, etc.)

National Sanitation Foundation. *Commercial Powered Food Preparation Equipment*. *(Standard #8)*. Chicago, Illinois: National Restaurant Association, 1974. ($1.00, l.p. Sanitation requirements for power operated commercial food preparation equipment: mixers, peelers, grinders, slicers, tenderizers, etc.)

National Sanitation Foundation. Dispensing Freezers. (Standard #6). Chicago, Illinois: National Restaurant Association, 1970. 29 pp. ($1.00, l.p. Design, material, and construction of dispensing freezers which by batch or continuous feed operation process and dispense soft ice cream, ice milk, malts, custards and similar frozen dairy products directly into consumer used containers.)

National Sanitation Foundation. Food and Beverage Dispensing Equipment. (Standard #18). Chicago, Illinois: National Restaurant Association, 1974. 28 pp. ($1.00, l.p. Sanitation requirements for equipment and devices which dispense food or beverage either in bulk or portions.)

National Sanitation Foundation. Food Service Equipment. (Standard #2). Rev. ed. Chicago, Illinois: National Restaurant Association, 1973. 55 pp. ($1.00, l.p. "Fabricated food service equipment": tables of all kinds, counters, shelves, sinks, hoods, etc.)

National Sanitation Foundation. Food Service Refrigerators and Storage Freezers. (Standard #7). Chicago, Illinois: National Restaurant Association, 1973. 29 pp. ($1.00, l.p. Sanitation requirements for food service refrigerators and food service storage freezers.)

National Sanitation Foundation. Soda Fountain and Luncheonette Equipment. (Standard #1). Rev. ed. Chicago, Illinois: National Restaurant Association, 1973. 75 pp. ($1.00, l.p. Design, construction, and sanitation requirements for creamers and bobtails, cafeteria units, hot and cold food units, etc.)

National Sanitation Foundation. Special Equipment and Devices - Food Equipment. (Criteria C-2). National Restaurant Association, 1972. 23 pp. ($1.00, l.p. Sanitation requirements for equipment and devices used in the storage, preparation, or handling of foods and beverages.)

OSHA Self Inspection Supplement. Chicago, Illinois: National Restaurant Association, 1976. 40 pp. ($2.50, l.p. Companion publication to the Safety Self Inspection Program which presents OSHA standards most pertinent to foodservice operations.)

Richardson, Treva. Sanitation for Foodservice Workers. 2nd ed. Boston, Massachusetts: Cahner's Books International, Inc., 1974. 148 pp. ($9.95, l.p. Bacteriology, communicable diseases, food-borne diseases, food protection, pest control, dishwashing procedures, and personal hygiene.)

Today's Busboy. New York, New York: Chain Store Publishing Corporation, Affiliate of Lebhar-Friedman Publishers, Inc., 1971. 140 pp. ($2.50, l.p. Self-instructional training program; low reading level.)

Today's Dishwashing Machine Operator. New York, New York: Chain Store Publishing Corporation, Affiliate of Lebhar-Friedman Publishers, Inc., 1971. 170 pp. ($2.50, l.p. Self-instructional training program; low reading level.)

Today's Waitress. New York, New York: Chain Store Publishing Corporation, Affiliate of Lebhar-Friedman Publishers, Inc., 1971. 200 pp. ($2.50, l.p. Self-instructional training program; low reading level.)

PAMPHLET SOURCES

American Home Economics Association, 2010 Massachusetts Avenue, N.W., Washington, D.C. 20036

American Institute of Baking, 400 East Ontario Street, Chicago, Illinois 60611

Manufacturing Chemists Association, 1825 Connecticut Avenue, N.W., Washington, D.C. 20009

U.S. Department of Health, Education, and Welfare, Washington, D.C. 20201

United States Government Printing Office, Superintendent of Documents, Washington, D.C. 20402

PERIODICALS

Bon Appetit. Boulder, Colorado: Bon Appetit. ($7.95, 1-year subscription of 12 issues. Menus, recipes, food preparation, entertaining, kitchen plans, and information on restaurants.)

Co-ed. Englewood Cliffs, New Jersey: Scholastic Magazines, Inc. ($5.00, 10 issues. Published monthly--September to June. Special features on child development; intellectual, social, emotional, and physical aspects of teenage girls; food preparation; fashion: to make, to buy; housing; and money management.)

Family Circle. ($0.45, single copy; no subscriptions; available at newsstands. Home furnishings, decorating, food, fashion, beauty, health, diet, and nutrition.)

FDA Consumer. Washington, D.C.: Superintendent of Documents, U.S. Government Printing Office. ($3.50, annual subscription of 10 issues. Recent developments in the regulation of foods, drugs, cosmetics, and other products by the Food and Drug Administration.)

Food and Nutrition. Washington, D.C.: Superintendent of Documents, U.S. Government Printing Office. ($3.00, 1-year subscription; $0.50, single copy. Published bimonthly. Information needed to help families improve their diets.)

Forecast. Englewood Cliffs, New Jersey: Scholastic Magazines, Inc. ($5.00, 9 issues. Published monthly--September to May/June. Co-ed magazine. Teaching techniques, special features, clothing and textile arts, health and grooming, food and nutrition, home furnishings and equipment, careers, crafts, personal development, and consumer awareness.)

Future Homemaker. Austin, Texas: Texas Education Agency. ($0.20, a year. Available only to Texas FHA. Published four times a year--August, October, January, and May. Highlights from homemaking programs in Texas.)

Illinois Teacher of Home Economics. Urbana, Illinois: Illinois Teacher, University of Illinois. ($7.50, 1-year subscription, published five times during academic year. Teaching techniques and curriculum ideas.)

Penney's Forum. New York, New York: J.C. Penney Company, Inc. (Free. Distributed by managers of J.C. Penney Stores bi-annually. Curriculum ideas; teaching techniques; and special features such as value clarification, consumerism, interpersonal relationships, attitudes, behavior, human potential, and other information for educators.)

School Foodservice Research Review. Denver, Colorado: Research Review. ($5.00, 1-year subscription. Research and ongoing projects in institutional food service; school lunch, breakfast and milk programs; food service for handicapped, preschool children, and the elderly.)

Teen Times. Washington, D.C.: Future Homemakers of America. ($3.00, 1-year subscription; $0.75, single copy. Published quarterly--September, November, January, and March. In-depth projects to meet goals, using articles as teaching tools, career information, and member idea exchange.)

Tips and Topics. Lubbock, Texas: Texas Tech University. ($4.00. Published quarterly. Order from Tips and Topics. Teaching ideas and information on current trends in the field of home economics.)

What's New in Home Economics. Philadelphia, Pennsylvania: North American Publishing Company. ($29.00, 15 issues. Order from: What's New in Home Economics. Published monthly--May, September, and December; twice monthly--January, February, March, April, October, and November. Special features on child development, consumer education, nutrition, clothing and textiles, housing, and money management; critique of new educational materials and teaching techniques.)

PERIODICAL SOURCES

School library and local newsstand

TEACHING AIDS

Careers in Food Service. New York, New York: Fairchild Books and Visuals, n.d. ($80.00, s.p., purchase. Thirty-eight slides. Jobs available in food service and the different routes to developing the skills required for each position.)

Careers in the Food Industry. Altoona, Pennsylvania: Butterick Publishing, 1974. ($75.00, 1.p., purchase with record or cassette. Four filmstrips, color, sound, 10 minutes, cassettes or records, teacher's guide. Product Development; Nutrition, Dietetics, and Consumer Affairs; Commercial Food Service; and Getting from Here to There.)

The Coffee That Came to Dinner. New York, New York: Pan American Coffee Bureau, 1970. (Free loan. One film, color, sound, 15 minutes. Training personnel on brewing, demonstrations on procedures for making, trouble spots, and equipment.)

Dining Room Sanitation. Sherman Oaks, California: National Educational Media, Inc., 1970. (Free loan. Order from: Texas Department of Health Resources. One film, color, sound, 12 minutes. Techniques of sanitary food handling for dining room personnel; importance of the servers' personal cleanliness, hygiene and grooming; sanitary practices necessary before reporting to work, and dining room practices that inhibit growth of germs.)

Flair With Frostings and Desserts. Minneapolis, Minnesota: General Mills, n. d. ($2.50, rental; $10.00, purchase; $2.00, per 25 student booklets, minimum order 25. One filmstrip, color, silent, 82 frames, narration guide. Complete steps in frosting cakes with ideas for easy, unusual cakes and desserts.)

Food Preparation (Home/Food Service). Cincinnati, Ohio: Procter and Gamble Company, 1975. ($3.75, l.p. One teaching unit. Educator Resource Guide, 17 student worksheets (duplicating masters), six master visuals for making overhead transparencies. Part I, Food Facts For Home--nutrition, meal planning, food preparation skills (baking, frying); Part II, Facts About Food Service--job opportunities and basic food service skills.)

Hospital Food Services. Jamaica, New York: Eye Gate Media. ($25.00, l.p. One filmstrip, color, sound, cassette. Job descriptions for administrative dietician, diet technician, kitchen manager, chef and line servers; special diets; portion control; inventory and ordering of supplies; kitchen safety and sanitary handling of food.)

Kitchen Management Principles. New York, New York: Sterling Educational Films. ($180.00, l.p., purchase. One film, color, sound, 13 minutes, available 8mm loops. Equipment storage, safety, sanitation, table setting, and clean-up.)

The Marvels of Microwave. Corning, New York: Corning Glass Works, 1976. ($12.00, l.p. One resource kit, 1½ cup corning petite pan, filmstrip and cassette, teacher's guide, flash cards, transparancies and wall chart. Microwave cooking.)

Metrics Made Easy. Costa Mesa, California: Franklin Clay Films, 1976. ($38.00, l.p., purchase with cassettes; $40.00, l.p., purchase with record. Two filmstrips, color, sound, 13 minutes each, cassettes or record, discussion guide. Film 1: Metric Cooking Made Easy, Film 2: Metric Sewing Made Easy.)

Microwave Meals. Minneapolis, Minnesota: General Mills, 1976. ($2.50, rental; $11.00, purchase; $2.00 per 25 additional student booklets, minimum order 25. One filmstrip, color, sound, 14 minutes, student booklet, cassette. Basic principals of microwave cooking and the different sequence used in preparing meals.)

Mr. Dish Machine Operator. Sherman Oaks, California: National Educational Media, Inc., 1970. (Free loan. Order from: Texas Department of Health Resources. One film, color, sound, 13 minutes. Operation of commonly-used dish machines; correct way of loading dishes, cups, glasses, and silverware; pre-rinsing; safe, sanitary handling of dishes after they are washed; temperature control; use of detergents and other chemicals; and rules for cleaning the dishmachine.)

Moving to Metric. Corning, New York: Corning Glass Works, n.d. ($8.00, l.p. One resource kit, one 500 ml. liquid measure, set of three dry measures, set of five small measures, metric ruler, teacher's manual, 10 duplicating masters, three wall charts, six decals with temperature guides, six oven stickers with Celsius replacement temperatures for oven use. Basics of metrics, metric measures for cooking, and practical applications of metric.)

The Nutrition Series. New York, New York: McGraw-Hill Films. ($97.00, l.p., with records; $109.00, l.p., with cassettes. Six filmstrips, color, sound, 52-64 frames each, teacher's guide. Why You Eat; Digestion: You Are What You Eat; Waldo Learns About Nutrition: Part 1--Fats, Carbohydrates, Proteins; Waldo Learns About Nutrition: Part 2--Minerals and Vitamins; Filling Food Needs; and The Art of Balance: Controlling Body Weight.)

Principles of Food Service. New York, New York: Butterick Publishing, 1977. ($188.00, l.p., complete set. Eight filmstrips, color, sound, 10 minutes each, cassettes, teacher's guide. Program 1: Food Service, Sanitation, Safety, Economy and Efficiency; Program 2: The Customer is the Key, Courtesy, Atmosphere, and Food Presentation.)

Quickbreads. Washington, D.C.: Wheat Flour Institute, n.d. ($8.50, purchase, all three parts; $3.00, purchase separately. Three filmstrips, color, silent, 39-48 frames each. Part I, Biscuits and scones; Part II, muffins, loaf bread, and quick coffee cakes; Part III, variety round-up--dumplings, steamed breads, cornbread, griddle-cakes, waffles, popovers, cream puffs, doughnuts, and fritters.)

Safety and Sanitation in Handling Food. Costa Mesa, California: Franklin Clay Films, n.d. ($20.50, l.p., purchase with cassette; $21.50, l.p., purchase with record. One filmstrip, color, sound, 14 minutes, discussion guide. Preventing food-caused infections.)

Safety in the Kitchen. Costa Mesa, California: Franklin Clay Films, 1974. ($20.50, l.p., purchase with cassette; $21.50, l.p., purchase with record. One filmstrip, color, sound, 12 minutes, cassette or record, discussion guide. Causes of accidents in the kitchen--falls, fires, burns, chemicals, and electrical shock; and preventive measures.)

Sanitation Rules Make Sense. Sherman Oaks, California: National Education Media, Inc., 1970. (Free loan. Order from: Texas Department of Health Resources. One 16mm film, color, sound, 12 minutes. Basic rules of sanitation; how to handle potentially hazardous foods including fowl, seafood, and custards; control of pests; personal cleanliness; proper techniques for cooling, storage and refrigeration; and key responsibilities of food service workers in protecting public health.)

Sanitation: Why All the Fuss? Sherman Oaks, California: National Educational Media, Inc., 1970. (Free loan. Order from: Texas Department of Health Resources. One 16mm film, color, sound, 12 minutes. Introduction to sanitation; biological reasons for sanitation and conditions for controlling bacterial growth; danger of bacteria, how bacteria spread from place to place, and how their growth can be accelerated; importance of cleanliness and need for proper heating and cooling of foods.)

TEACHING AID SOURCES

Communications in Learning, Inc., 2929 Main Street, Buffalo, New York 14214

Ekco Housewares Company, Educational Services Department, 9234 West Belmont Avenue, Franklin Park, Illinois 60131

Environment and Health Committee of the Single Service Instituue, 250 Park Avenue, New York, New York 10017

National Educational Media, Inc., 15760 Ventura Boulevard, Encino, California 91436

National Restaurant Association, Educational Materials Center, One IBM Plaza, Suite 2600, Chicago, Illinois 60611

National Safety Council, School and College Department, 444 N. Michigan Avenue, Chicago, Illinois 60611

Restaurant-Hotel Learning Aids, 5050 Excelsior Boulevard, Minneapolis, Minnesota 55416

Texas Department of Health Resources, Division of Public Health Education, Film Library, 410 East 5th Street, Austin, Texas 78701

United Fresh Fruit and Vegetable Association, 1019 Nineteenth Street, NW, Washington, D.C. 20036

U.S. Department of Agriculture, Washington, D.C. 20250

Wheat Flour Institute, 1776 F Street N.W., Washington, D.C. 20006

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